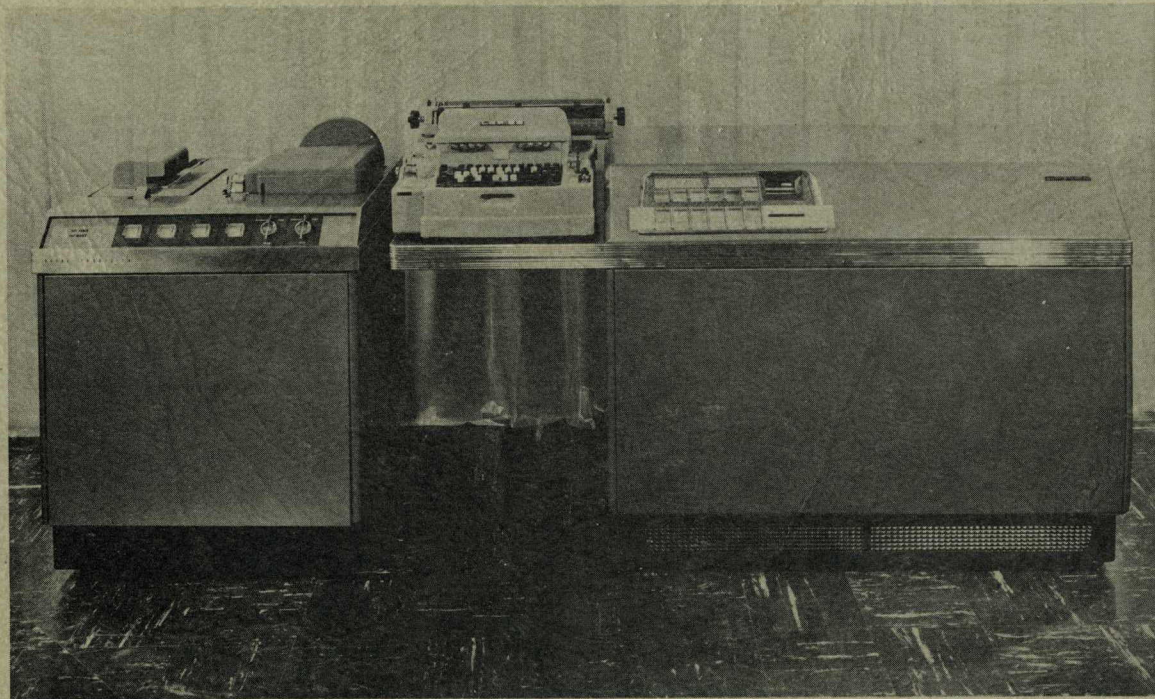


**Royal Precision Electronic Computer**

**LGP-30**

**SUBROUTINE MANUAL  
CODING SHEETS**



**Royal McBee Corporation**

LGP-30 SUBROUTINE MANUAL  
(CODING SHEETS)

The following pages constitute the coding sheets for the LGP-30 subroutines. These coding sheets are designed to serve the following purposes:

- a. To assist programmers in checking out programs.
- b. To exhibit the present logical structure of subroutines with a view to facilitating the construction of new subroutines or revisions of present ones.

This manual should be made available to all persons in the LGP-30 installation who might wish to consult it. It is suggested that at least one copy be kept with the computer at all times.

The conventions applicable to the subroutine manual also apply to these coding sheets. Bracketed locations are used as temporary storage. If the address of an instruction is modified in the execution of the subroutine, the address is bracketed.

Programs may be obtained by writing to Royal McBee Corporation, Electronic Computer Department, 1532 North Cahuenga Boulevard, Hollywood 28, California.

ROYAL McBEE CORPORATION  
Electronic Computer Department  
Port Chester, New York

INDEX OF ROUTINES & SUBROUTINES

SUBJECT DESCRIPTION	PROGRAM NO.	PAGE NO.
ALPHANUMERIC OUTPUT	19.0	48
ARCSINE - ARCCOSINE	20.0	49
ARCTANGENT	16.0	39
BOOTSTRAP	09.0	1
DATA INPUT NO. 1	11.0 <sub>R</sub>	5
DATA INPUT NO. 2	11.1	9
DATA INPUT NO. 3	11.2	11
DATA OUTPUT NO. 1	12.0 <sub>A</sub>	23
DATA OUTPUT NO. 5	12.4	25
DECIMAL MEMORY PRINTOUT	21.0	53
EXPONENTIAL	17.0	42
FIXED POINT TRACE	23.1	57
FLOATING POINT SYSTEM	24.0	69
ARCTANGENT	16.2	40
EXPONENTIAL	17.1	43
FLOAT AND UNFLOAT	25.0 <sub>R</sub>	79
INPUT-OUTPUT	11.6 - 12.6	15
INTERPRETIVE	24.0	69
LOGARITHM	18.1	47
SINE-COSINE	14.1	35
TRACE	23.4	67
HEXADECIMAL PUNCH	13.2	29
LGP-30 PROGRAM INPUT	10.4	2
LOGARITHM	18.0	45
SEARCH FOR ADDRESS	26.2	82
SINE COSINE	14.0	34
SQUARE ROOT	15.1	38



LGP-30 CODING SHEET

Job No. \_\_\_\_\_ Prog. No. 09.0 Prep. by P.P.M. Ck'd. by \_\_\_\_\_ Page 1 of 1  
 Date 11/7/56

Problem DECIMAL CODING OF BOOTSTRAP Track \_\_\_\_\_

NOTES

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		0 0	P	0.0.0.0			
		0 1	I	0.0.0.0			
		0 2	C	6.3.0.5			
		0 3	P	0.0.0.0	<input checked="" type="checkbox"/>		
		0 4	I	0.0.0.0			
		0 5	[				
		0 6	U	6.3.0.0			
		0 7	P	0.0.0.0	<input checked="" type="checkbox"/>		
		0 8	I	0.0.0.0			
		0 9	O.G.W.C.	[ ]			
		1 0	B	6.3.4.6			
		1 1	S	6.3.2.6	<input checked="" type="checkbox"/>		
		1 2	U	6.3.2.2			
		1 3	Z	0.0.0.0			
		1 4	U	0.0.0.0			
		1 5			<input checked="" type="checkbox"/>		
		1 6					
		1 7					
		1 8					
		1 9			<input checked="" type="checkbox"/>		
		2 0					
		2 1					
		2 2	T	6.3.1.3			
		2 3	H	6.3.0.9	<input checked="" type="checkbox"/>		
		2 4	C	6.3.4.6			
		2 5	U	6.3.0.7			
		2 6	O.O.O.W.W.W.W.	[ ]			
		2 7			<input checked="" type="checkbox"/>		
		2 8					
		2 9					
		3 0					
	<input checked="" type="checkbox"/>	O.G.W.C.	0.0.0.0		<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Royal McBee Corporation



Job No. \_\_\_\_\_ Prog. No. 10.4 Prep. by \_\_\_\_\_ Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem PROGRAM INPUT #3 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.0 0.0	C 0.1.4.3			
		0.1	X P 0.0.4.4			
		0.2	X I 0.0.0.0			
		0.3	T 0.1.3.2	<input checked="" type="checkbox"/>	→ NEG. TEST OR LESS	
		0.4	S 0.0.4.7		1 <sup>0</sup> 3	
		0.5	T 0.0.3.4		→ INST.	
		0.6	S 0.0.4.9		1 <sup>0</sup> 3	
		0.7	T 0.1.3.4	<input checked="" type="checkbox"/>	→ ERROR	
		0.8	S 0.1.4.4		1 <sup>0</sup> 3	
		0.9	T 0.1.6.2		→ COMMAND	
		1.0	V 0.0.1.1			
		1.1	S 0.0.4.7	<input checked="" type="checkbox"/>	1 <sup>0</sup> 3	
		1.2	T 0.1.1.3		→ START FIN.	
		1.3	S 0.0.4.9		1 <sup>0</sup> 3	
		1.4	T 0.2.0.9		→ SET MODIFIER	
		1.5	S 0.1.4.4	<input checked="" type="checkbox"/>	1 <sup>0</sup> 3	
		1.6	T 0.1.5.3		→ STOP + TRANSFER	
		1.7	V 0.0.1.8			
		1.8	S 0.0.4.7		1 <sup>0</sup> 3	
		1.9	T 0.2.4.8	<input checked="" type="checkbox"/>	→ N HEX WORDS	
		2.0	H 0.0.3.9			
		2.1	E 0.1.0.0		07 WW 0000 DRAP ADD.	
		2.2	N 0.1.3.7		1 <sup>0</sup> 27	
		2.3	S 0.0.0.2	<input checked="" type="checkbox"/>	1 <sup>0</sup> 13 FORM (N-1) H 0000	
		2.4	C 0.2.0.3			
		2.5	C 0.2.6.3		0 → Σ	
		2.6	B 0.0.4.8		00003 WW 3	
		2.7	E 0.0.3.9	<input checked="" type="checkbox"/>	Drop n n 2 2 3	
		2.8	V 0.0.3.1			
2.0.0.0.0.0.2		2.9			4, 1 <sup>0</sup> 29 + STOP	
		3.0	2.7. KW. KW. J			
		3.1	A 0.2.0.3	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 10.4 Prep. by \_\_\_\_\_ Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem PROGRAM INPUT ROUTINE #3 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		3.2	V 0.0.5.4			
		3.3	X Z 0.0.0.0		MODIFIER	
		3.4	R 0.0.6.3			
		3.5	V 0.0.5.0	<input checked="" type="checkbox"/>		
		3.6	S 0.1.0.1		9 <sup>0</sup> 11	
		3.7	T 0.1.0.2			
		3.8	V 0.1.0.5			
		3.9	[	<input checked="" type="checkbox"/>	TEMP.	
		4.0				
		4.1	R 0.0.6.3			
		4.2	V 0.0.5.0			
		4.3	S 0.1.0.1	<input checked="" type="checkbox"/>	9 <sup>0</sup> 11	
		4.4	T 0.1.0.3			
		4.5	A 0.2.1.7		80000000	
		4.6	V 0.1.0.5			
2.0.0.0.0.0.3		4.7	1.0.0.0.0.0.0	<input checked="" type="checkbox"/>		
		4.8	3. N. W. J			
		4.9	1.0.0.0.0.0.0			
		5.0	N 0.0.2.9		1 <sup>0</sup> 29	
		5.1	E 0.0.3.0	<input checked="" type="checkbox"/>	TRIM WORD	
		5.2	H 0.1.1.0		N	
		5.3	V 0.0.5.7			
		5.4	Y 0.2.2.6			
		5.5	H 0.2.2.5	<input checked="" type="checkbox"/>		
		5.6	V 0.2.2.2			
		5.7	E 0.1.2.9		3J3J3J0	
		5.8	M 0.1.3.0		-6 <sup>0</sup> 4	
		5.9	A 0.1.1.0	<input checked="" type="checkbox"/>	N <sub>1</sub>	
		6.0	H 0.0.3.9		N <sub>2</sub>	
		6.1	V 0.1.5.8			
2.0.0.0.0.0.4		6.2			1 <sup>0</sup> 30	
		6.3	V L	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 10.4 Prep. by \_\_\_\_\_ Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem PROGRAM INPUT ROUTINE #3 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		01.00	T.W.W.O.O.O.O			
		01	9.0.0.0.0.0		9@11	
		02	A.0.1.4.5		9@11	
		03	E.0.2.4.6	<input checked="" type="checkbox"/>	800W3WWT	
		04	A.0.0.3.3		MODIFIER	
		05	C.6.3.0.0		"START FILL" CTR.	
		06	B.0.1.4.9			
		07	A.0.0.2.9	<input checked="" type="checkbox"/>	1@29	
		08	V.0.1.2.6			
7.0.0.0.0.0.3		09	W.W.W.W.W.O.O			
		10	L	J	TEMP	
		11	7.0.0.0.0.0.0	<input checked="" type="checkbox"/>		
		12	V.0.0.6.2			
		13	R.0.0.6.3		HERE FOR START FILL	
		14	V.0.0.5.0			
		15	V.0.1.2.6	<input checked="" type="checkbox"/>		
		16	T.0.1.3.4		→ ERROR	
		17	S.0.2.6.0			
		18	V.0.2.0.5			
		19	Y.0.1.0.5	<input checked="" type="checkbox"/>		
		20	Y.0.1.4.9			
		21	S.0.1.4.3		CTR	
		22	T.0.1.2.4			
		23	V.0.0.0.0	<input checked="" type="checkbox"/>		
		24	C.0.2.0.3		0 → Acc	
		25	V.0.1.4.7			
		26	Y.0.1.0.5			
		27	Y.0.1.4.9	<input checked="" type="checkbox"/>		
		28	V.0.0.0.0			
3.0.0.0.0.0.3		29	3.3.3.3.0			
		30	K.0.0.0.0.0.0			
		31	F.0.0.0.0.0.0	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 10.4 Prep. by \_\_\_\_\_ Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem PROGRAM INPUT ROUTINE #3 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		32	A.0.1.1.1		70000000	
		33	T.0.0.4.1			
		34	X.P.1.6.0.6		CARR. RETURN	
		35	X.Z.0.0.0.0	<input checked="" type="checkbox"/>		
		36	X.P.3.7.0.1		"e"	
		37	X.Z.0.0.0.4		DELAY + 1@27	
		38	C.0.1.1.0		0 → Acc.	
		39	V.0.2.1.3	<input checked="" type="checkbox"/>		
		40	C.P.2.2.5			
		41	8.0.0.7.0.0.0			
		42	V.0.2.5.2			
7.0.0.0.0.0.3		43	F	J	TEMP	
		44	1.0.0.0.0.0.0		1@3	
		45	9.0.0.0.0.0			
		46	C.0.1.4.3			
		47	X.P.0.0.2.6	<input checked="" type="checkbox"/>		
		48	X.I.0.0.0.0			
		49	C.6.3.0.0		"START FILL" CTR	
		50	B.0.0.2.9		1@29	
		51	A.0.1.0.5	<input checked="" type="checkbox"/>		
		52	V.0.1.1.9			
		53	R.0.0.6.3		HERE FOR STOP & TRANSFER	
		54	V.0.0.5.0			
		55	Y.0.1.5.7	<input checked="" type="checkbox"/>		
		56	X.Z.3.2.0.0			
		57	V.L.	J		
		58	E.0.1.0.9		0 wwwwww00	
		59	M.0.1.3.1	<input checked="" type="checkbox"/>	-1/4 @ 0	
		60	A.0.0.3.9		N2	
		61	V.0.0.6.3			
		62	R.0.0.6.3		HERE FOR COMMAND	
		63	V.0.0.5.0	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 10.4 Prep. by \_\_\_\_\_ Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem PROGRAM INPUT ROUTINE #3 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.2.0.0	C.0.2.0.3			
		0.1	X.P.0.0.44			
		0.2	X.I.0.0.0.0			
		0.3	[ L ]	<input checked="" type="checkbox"/>	Temp.	
		0.4	V.0.0.0.0			
		0.5	T.0.0.0.0			
		0.6	V.0.1.3.4			→ ERROR
<u>0.0.0.0.0.2</u>		0.7	W.W.W.W.W	<input checked="" type="checkbox"/>	1 <sup>0</sup> - 1 <sup>029</sup>	
		0.8				
		0.9	R.0.0.6.3			HERE FOR SET MODIFIER
		1.0	V.0.0.5.0			
		1.1	Y.0.0.3.3	<input checked="" type="checkbox"/>		
		1.2	V.0.0.0.0			
<u>0.0.0.0.0.3</u>		1.3	R.0.K.0.0		"F"	
		1.4	4.0.0.0.0.0.0.0		1 <sup>01</sup> + DELAY	
		1.5	R.0.K.0.8	<input checked="" type="checkbox"/>	"F"	
		1.6	Y.0.0.6.3			
<u>0.0.0.0.0.4</u>		1.7	R.0.0.0.0.0.0.0		1 <sup>00</sup>	
		1.8	R.2.3.F.0		"0"	
		1.9	4.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 <sup>01</sup> + DELAY	
		2.0	R.0.K.0.0		"F"	
		2.1	V.0.1.1.1			
		2.2	C.0.2.5.8			
		2.3	X.P.0.0.0.2	<input checked="" type="checkbox"/>		
		2.4	X.I.0.0.0.0			
		2.5	[ L ]		NHM	
		2.6	[ BL ]			
		2.7	T.0.2.5.6	<input checked="" type="checkbox"/>		
		2.8	S.0.2.1.4		1 <sup>01</sup>	
		2.9	T.0.2.6.1			
		3.0	S.0.2.5.9		1 <sup>01</sup> - 1 <sup>030</sup>	
		3.1	T.0.2.6.1	<input checked="" type="checkbox"/>		

Conditional Stop Code

Carriage Return

Job No. \_\_\_\_\_ Prog. No. 10.4 Prep. by \_\_\_\_\_ Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem PROGRAM INPUT ROUTINE #3 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		3.2	V.0.2.3.3			
		3.3	A.0.0.6.2		1 <sup>030</sup>	
		3.4	A.0.2.6.3		E	
		3.5	S.0.2.1.4	<input checked="" type="checkbox"/>	1 <sup>01</sup>	
		3.6	T.0.2.4.0			
		3.7	S.0.2.5.9		1 <sup>01</sup> - 1 <sup>030</sup>	
		3.8	T.0.2.4.0			
		3.9	V.0.2.4.1	<input checked="" type="checkbox"/>		
		4.0	A.0.2.1.9		1 <sup>01</sup>	
		4.1	C.0.2.6.3			
		4.2	S.0.2.0.7		1 <sup>011</sup> - 1 <sup>029</sup>	
		4.3	A.0.2.5.8	<input checked="" type="checkbox"/>		
		4.4	T.0.1.4.0			→ FINISHED LOADING
		4.5	V.0.0.5.4			
<u>0.0.0.0.0.1</u>		4.6	R.0.0.W.3.W.W			
		4.7		<input checked="" type="checkbox"/>		
		4.8	R.0.0.6.3			HERE N HEX WORDS
		4.9	V.0.0.5.0			
		5.0	A.0.1.0.5			
		5.1	V.0.1.4.6	<input checked="" type="checkbox"/>		
		5.2	X.P.0.0.3.1			READ CK. SUM
		5.3	X.I.0.0.0.0			FROM TAPE
		5.4	S.0.2.6.3			COMPUTED CK. SUM
		5.5	V.0.1.1.6	<input checked="" type="checkbox"/>		
		5.6	A.0.2.1.4		1 <sup>01</sup>	
		5.7	V.0.2.2.9			
<u>0.0.0.0.0.3</u>		5.8	[ L ]		NHM	
		5.9	R.W.W.W.W.W.W.W	<input checked="" type="checkbox"/>		
		6.0			1 <sup>030</sup>	
		6.1	A.0.2.1.9		1 <sup>01</sup>	
		6.2	V.0.2.3.4			
		6.3	[ L ]	<input checked="" type="checkbox"/>		CHECK SUM

Conditional Stop Code

Carriage Return



Program Input Codes	Stop	Location	Instruction Op.	Address	Contents of Address	Notes
5.000						
1.000	<input checked="" type="checkbox"/>					
		000.0	B.011.5	A0030		
		0.1	L.004.4			
		0.2	X.P.00.38			INPUT I.D. WORD
		0.3	X.I.000.0	<input checked="" type="checkbox"/>		
		0.4	X.H.6.3.5.4	ORIG I.D. WORD		
		0.5	T.002.2			→ P > 7
		0.6	U.000.7			
		0.7	S.00.2.9	<input checked="" type="checkbox"/>	1@30	
		0.8	T.L. J.	EXIT	OUT IF I.D. WORD	
		0.9	A.01.4.5		1@30	
		1.0	M.01.3.2		1@29	SHIFT LEFT 2
		1.1	L.02.3.3	<input checked="" type="checkbox"/>	05WKWKWT	DROP P-TRIM I.D. WORD
		1.2	X.H.6.3.5.5		N.	
		1.3	U.001.7			
		1.4	M.01.3.6		1@24	SHIFT RT. 24 BITS
		1.5	U.00.4.4	<input checked="" type="checkbox"/>		
		1.6	X.Z.00.3.0		30@29(0051)	
		1.7	L.00.6.0		03J3J3J0	
		1.8	M.01.4.0		-6@4	
		1.9	X.H.6.3.5.5	<input checked="" type="checkbox"/>	N.	
		2.0	X.H.6.3.5.6		N2	
		2.1	U.002.5			
		2.2	B.00.4.4			
		2.3	U.00.1.0	<input checked="" type="checkbox"/>		
		2.4	X.Z.00.3.2		8@27(0044)	
		2.5	L.02.4.0		0WWWWWW00	
		2.6	M.02.6.2		-34@0	
		2.7	X.H.6.3.5.6	<input checked="" type="checkbox"/>	N2	
		2.8	U.00.3.1			
2.0.0.0.0.0.2		2.9	L. J.		1@30(0007) (0100)	
		3.0	L. J.		(0044)	
		3.1	Y.0.2.6.0	<input checked="" type="checkbox"/>	loc of CLEAR OF NO. to MEMOR.	

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Program Input Codes	Stop	Location	Instruction Op.	Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.0.3.2	S.0.2.4.7		1@7	
		3.3	T.0.2.2.0			→ POSITIVE 9
		3.4	E.0.2.1.3	WWW0000		HERE FOR NEG. 9
		3.5	X.C.6.3.5.7	<input checked="" type="checkbox"/>		PROP. ADD. COMPLIMENT 9
		3.6	X.S.6.3.5.7			
		3.7	M.0.0.5.9		1@14	SHIFT TO 29
		3.8	X.H.6.3.0.3		8@29	
		3.9	X.B.6.3.5.4	<input checked="" type="checkbox"/>	ORIG I.D. WORD	
		4.0	E.0.2.1.9	70000000		DROP ALL BUT P@3
		4.1	U.0.0.1.4			
		4.2	B.0.1.2.1		EXIT Z 0114	HERE FOR POSITIVE NO.
		4.3	U.0.1.0.8	<input checked="" type="checkbox"/>		
		4.4	A[ ]		A0030 OR A0024	
		4.5	U.0.0.4.6			
		4.6	X.H.6.3.0.4		4P@29	
		4.7	M.0.1.3.3	<input checked="" type="checkbox"/>	1@2	P@29
		4.8	A.0.1.1.3		L0 (10P)	
		4.9	Y.0.2.3.5		L (10P)	
		5.0	Y.0.2.2.2		L (10P)	
		5.1	B.0.0.1.6	<input checked="" type="checkbox"/>	30@29	
		5.2	X.S.6.3.0.3		9@29	
		5.3	X.S.6.3.0.4		4P@29	
		5.4	X.P.0.0.1.2			START READER
		5.5	T.0.2.2.7	<input checked="" type="checkbox"/>		→ SHIFT RIGHT TO SCALE
		5.6	R.0.1.1.4			HERE! SHIFT LEFT TO SCALE
		5.7	U.0.0.6.1			
		5.8	U.0.2.3.4			
2.0.0.0.0.0.2		5.9	2.0.0.0.0	<input checked="" type="checkbox"/>	1@14(0037)	
		6.0	3.J.3.J.3.J.0		(0015)	
		6.1	A.0.2.2.6		D (L0)	
		6.2	C.0.2.3.4		SCALE ORDER	
		6.3	X.I.0.0.0.0	<input checked="" type="checkbox"/>		INPUT DATA WORD

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		01.0.0	N.0.0.2.9		1 @ 30	SHIFT OUT OF SPACER
		0.1	E.0.2.3.7			TRIM WORD
		0.2	X.H.6.3.5.2		No. IN DEC.	
		0.3	S.0.2.3.9	<input checked="" type="checkbox"/>	1 @ 30	
		0.4	T.0.2.5.9			→ WORD = 0
		0.5	S.0.1.4.1		1 @ 2 - 1 @ 30	
		0.6	T.0.0.4.2			→ POSITIVE WORD
		0.7	B.0.2.4.3	<input checked="" type="checkbox"/>	Z.0.2.1.6	HERE FOR NEG. WORD
		0.8	Y.0.1.4.4			ANARIZATION EXIT
		0.9	X.B.6.3.5.2		No. IN DEC.	
		1.0	E.0.2.4.6		1 wwwwww	Drop I POSITION
		1.1	X.H.6.3.5.4	<input checked="" type="checkbox"/>	N1	
		1.2	U.0.1.1.6			
		1.3	Z.0.2.4.8		L0 (108) (0048)	
		1.4	U.L. . .		U0259 07 U0230	
		1.5	A.0.0.3.0	<input checked="" type="checkbox"/>	L0000	
		1.6	E.0.2.3.8		01010100	
		1.7	M.0.1.4.6		-6 @ 4	
		1.8	X.H.6.3.5.4		N1	
		1.9	X.H.6.3.5.5	<input checked="" type="checkbox"/>	N2	
		2.0	U.0.1.2.4			
		2.1	Z.0.1.1.4		(0042)	
		2.2				
		2.3	M.0.1.4.8	<input checked="" type="checkbox"/>		
		2.4	E.0.1.3.9		0100W000	
		2.5	M.0.1.4.7		-156 @ 8	
		2.6	X.A.6.3.5.5		N0	
		2.7	X.H.6.3.5.6	<input checked="" type="checkbox"/>	N3	
		2.8	E.0.1.4.3		1WWW0000	
		2.9	M.0.2.1.5		-55536 @ 16	
		3.0	U.0.1.3.4			
0.0.2.0.2.0.0.3.1	<input checked="" type="checkbox"/>					

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.3.2		4	1 @ 29 (0010)	
		3.3	2.0.0.0.0.0.0.0		1 @ 2 (0047)	
		3.4	X.A.6.3.5.6		N3	
		3.5	U.0.1.4.4	<input checked="" type="checkbox"/>		
		3.6	X.Z.0.0.3.2		1 @ 24 (0014)	
		3.7	B.0.1.2.3		M (L0)	
		3.8	U.0.2.4.1			
7.0.0.0.0.0.4.1		3.9	1.0.0.1.0.0.0.0	<input checked="" type="checkbox"/>	(0124)	
		4.0	K.0.0.0.0.0.0.0		(0018)	
		4.1	1.WWWWWWW0		1 @ 2 - 1 @ 30 (0105)	
		4.2				
		4.3	1.WWWW0.0.0.0.0	<input checked="" type="checkbox"/>	(0128)	
		4.4	U.L. . .		U0114 or U0216	
		4.5		2	1 @ 30 (0009)	
		4.6	K.0.0.0.0.0.0.0		-6 @ 4 (0117)	
		4.7	G.2.0.0.0.0.0.0	<input checked="" type="checkbox"/>	-156 @ 8 (0125)	
		4.8	7.WWWWWWW0		9999999900	START OF TABLE OF SHIFTS
		4.9	4.0.0.0.0.0.0.0		1 @ 1	
		5.0	2.0.0.0.0.0.0.0		1 @ 2	
		5.1	1.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 3	
		5.2	8.0.0.0.0.0.0.0		1 @ 4	
		5.3	4.0.0.0.0.0.0.0		1 @ 5	
		5.4	2.0.0.0.0.0.0.0		1 @ 6	
		5.5	1.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 7	
		5.6	8.0.0.0.0.0.0.0		1 @ 8	
		5.7	4.0.0.0.0.0.0.0		1 @ 9	
		5.8	2.0.0.0.0.0.0.0		1 @ 10	
		5.9	1.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 11	
		6.0	8.0.0.0.0.0.0.0		1 @ 12	
		6.1	4.0.0.0.0.0.0.0		1 @ 13	
		6.2	2.0.0.0.0.0.0.0		1 @ 14	
		6.3	1.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 15	

Conditional Stop Code  Carriage Return

LGP-30 CODING SHEET

Job No. \_\_\_\_\_ Prog. No. 11.0R Prep. by M. KAYE Ck'd. by \_\_\_\_\_ Date 11-24-56

Problem DATA INPUT #1 SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		0.2.0.0	8.0.0.0		1@16	
		0.1	4.0.0.0		1@17	
		0.2	2.0.0.0		1@18	
		0.3	1.0.0.0	<input checked="" type="checkbox"/>	1@19	
		0.4	8.0.0		1@20	
		0.5	4.0.0		1@21	
		0.6	2.0.0		1@22	
		0.7	1.0.0	<input checked="" type="checkbox"/>	1@23	
		0.8	8.0		1@24	
		0.9	4.0		1@25	
		1.0	2.0		1@26	
		1.1	1.0	<input checked="" type="checkbox"/>	1@27	
		1.2	8		1@28	
		1.3	W.W.W.W.0.0.0.0		(0034)	
		1.4				
		1.5	9.3.8.8.0.0.0.0	<input checked="" type="checkbox"/>	-55536 @ (029)	
		1.6	X.C.6.3.5.2			COMPLEMENT NO.
		1.7	X.5.6.3.5.2			
		1.8	U.0.1.1.4			
7.0.0.0.0.0.1		1.9	7.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	(0040)	
		2.0	A.0.2.6.3		1@7	
		2.1	U.0.0.3.7			
		2.2	D.L. ]		L(10P)	DIVIDE BY 10 <sup>P</sup> @4P
		2.3	M.L. ]	<input checked="" type="checkbox"/>	SCALE	SHIFT RIGHT
		2.4	U.0.2.6.0			
		2.5				
		2.6	D.0.1.4.8		D(10) (0061)	
		2.7	X.C.6.3.5.6	<input checked="" type="checkbox"/>		
		2.8	R.0.1.1.4			
		2.9	U.0.1.3.7			
		3.0	U.0.2.2.2			
7.0.0.0.0.0.5		3.1		<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Royal McBee Corporation

LGP-30 CODING SHEET

Job No. \_\_\_\_\_ Prog. No. 11.0R Prep. by M. KAYE Ck'd. by \_\_\_\_\_ Date 11-24-56

Problem DATA INPUT #1 SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		0.2.3.2				
		3.3	S.W.K.W.K.W.J		(0011)	
		3.4	D.L. ]		SCALE	SHIFT LEFT
		3.5	D.L. ]	<input checked="" type="checkbox"/>	L(10P)	DIVIDE BY 10 <sup>P</sup> @4P
		3.6	U.0.2.6.0			
7.0.0.0.0.0.4		3.7	3.W.W.W.W.W.W.Q		EXTRACTOR (0101)	
		3.8	1.0.1.0.1.0.0		(0116)	
		3.9		2	<input checked="" type="checkbox"/>	1@30 (0103)
		4.0	W.W.W.W.W.0.0		(0025)	
		4.1	X.5.6.3.5.6			
		4.2	U.0.2.4.4			
		4.3	Z.0.2.1.6	<input checked="" type="checkbox"/>	(0107)	
		4.4	C.0.2.2.3			
		4.5	U.0.0.6.3			
7.0.0.0.0.0.1.3		4.6	1.W.W.W.W.W.W.Q		(0110)	
		4.7	1.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1@7 (0032)	
		4.8	7.W.W.W.W.W.W.Q		10 <sup>0</sup> @0	START OF TABLE OF 10 <sup>P</sup>
		4.9	5.0.0.0.0.0.0.0		10 <sup>1</sup> @4	
		5.0	3.2.0.0.0.0.0.0		10 <sup>2</sup> @8	
		5.1	1.W.4.0.0.0.0.0	<input checked="" type="checkbox"/>	10 <sup>3</sup> @12	
		5.2	1.3.8.8.0.0.0.0		10 <sup>4</sup> @16	
		5.3	J.3.5.0.0.0.0.0		10 <sup>5</sup> @20	
		5.4	7.F.1.2.0.0.0.0		10 <sup>6</sup> @24	
		5.5	7.F.4.6.4.0.0.0	<input checked="" type="checkbox"/>	10 <sup>7</sup> @28	
		5.6	2.W.F.W.0.8.0		10 <sup>8</sup> @32	
		5.7	1.K.J.K.6.5.0		10 <sup>9</sup> @36	
		5.8				ERROR HALT
		5.9	X.C.6.3.4.5	<input checked="" type="checkbox"/>	CLEAR ACC. HERE FOR NEG. WORD	
		6.0	C.L. ]			STORE WORD IN MEMORY; RETURN
		6.1	U.0.0.0.0			
7.0.0.0.0.0.2		6.2	F.0.0.0.0.0.0.0		-34@0 (0026)	FOR ANOTHER WORD
		6.3	1.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1@7 (0220)	

Conditional Stop Code



Carriage Return

Royal McBee Corporation



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Job No. \_\_\_\_\_ Prog. No. 11.1 Prep. by LIBRASCOPE Ck'd. by \_\_\_\_\_ Date 11-28-56

Problem DATA INPUT #2 SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
0.000						
1.000						
		00.0 0	X A 00.36			} READ DATA
		0 1	X I 00.37			} WORD
		0 2	M 00.45	1 @ 28		SHIFT LEFT 3 BITS
		0 3	M 00.32	1 @ 2		SHIFT RIGHT 2 BITS
		0 4	T 00.33			-> NEGATIVE NUMBER
		0 5	A 00.20			} BINARYIZE POSITIVE
		0 6	U 00.14			} NUMBER
		0 7	U C			X EXIT FROM INTEGER CONVERSION
		0 8	A 00.58		N2	
		0 9	A 0.12.4		N3	
		1 0	E 00.46		3 W W 0 0 0 0	
		1 1	M 00.47		X -55,536 @ 8	
		1 2	U 00.38			
		1 3				
		1 4	A 00.43		N1	
		1 5	E 00.51		X 618 19 140	
		1 6	M 00.52		-6 @ 4	
		1 7	U 00.21			
		1 8				
0.000 00.01		1 9	L W W W W W W W		X (0033)	
		2 0	U C			X EXIT FROM BINARYIZE ROUTINE
		2 1	A 00.43		N1	
		2 2	A 00.58		N2	
		2 3	E 00.59		X 7 0 0 1 W 0 0 0	
		2 4	M 00.60		-156 @ 8	
		2 5	U 00.08			
		2 6	D 0.1.0.7		(0040)	DUMMY ORDER
		2 7				X
		2 8	X R 00.00		3 @ 15 (0106)	
		2 9	S 00.58			
		3 0	U 00.07			
0.000 00.02		3 1	W 00.00		X MASK (0108)	

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 11.1 Prep. by LIBRASCOPE Ck'd. by \_\_\_\_\_ Date 11-28-56

Problem DATA INPUT #2 SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		0.0 3 2	2.0.0.0.0.0.0.0			1 @ 2 (0003)
		3 3	E 0.0.1.9			
		3 4	R 0.0.2.0			} BINARYIZE NEGATIVE
		3 5	U 0.0.1.4		X	} NUMBER
		3 6	C 0.0.5.8			
		3 7	U 0.0.2.9			
		3 8	A 0.1.2.4		N3	
		3 9	U 0.0.2.0		X	
		4 0	A 0.0.2.6		D 0104	FORM D [0060+C]
		4 1	U 0.1.1.4			
		4 2	N 0.0.4.8		(0113)	
7.0.0.0.0.0.2.5		4 3	[ ]		X TEMP (0014) (0021)	
		4 4				
		4 5			8	1 @ 28 (0022)
		4 6	3.W.W.9.0.0.0.0			(0010)
		4 7	9.3.8.8.0.0.0.0		X	(0011)
		4 8			4.0	2 @ 31
		4 9			5.0	10 x 2 @ 31
		5 0			6.4	10 @ 31
		5 1	6.1.0.1.0.1.0.0		X	(0015)
		5 2	K.0.0.0.0.0.0.0			(0016)
		5 3	2.0.0.0.0			(0110)
		5 4			1.0	(0111)
		5 5	7.W.W.0.3.W.W.0		X	MASK (0105)
		5 6	W.W.W.W.0			1 @ 11 - 1 @ 29 (0120)
		5 7				
		5 8	[ ]			TEMP (0008) (0022) (0029) (0036) (0104) (0108)
		5 9	7.0.0.1.W.0.0.0		X	(0023)
		6 0	G.2.0.0.0.0.0.0			(0024)
		6 1	1.3.1.2.K.0.0.0			10 @ 30
		6 2	1.0.8.4.8.0.0.0			10 @ 26
		6 3	1.8.6.F.0.0.0		X	10 @ 23

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 11-1 Prep. by LIBRASCOPE Ck'd. by \_\_\_\_\_ Date 11-28-56

Problem DATA INPUT #2 SUBROUTINE Track \_\_\_\_\_

NOTES

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
		0.1.0.0	1.3.8.8.0.0.0			10 <sup>4</sup> @20	
		0.1	1.W.4.0.0.0.0			10 <sup>3</sup> @16	
		0.2	1.9.0.0.0.0.0			10 <sup>2</sup> @13	
		0.3	1.4.0.0.0.0.0			10@10	
		0.4	H.0.0.5.8			I.D. WORD	ENTRY FOR FILL
		0.5	E.0.0.5.6				REMOVE CHARACTERIS
		0.6	S.0.0.2.8			3@15	FORM "CLEAR" ORDER
		0.7	C.0.1.1.8				
		0.8	B.0.0.5.8			I.D. WORD	
		0.9	F.0.0.3.1			000W0000	
		1.0	M.0.0.5.3			1@14	SHIFT TO Q=29
		1.1	S.0.0.5.4			7@29	
		1.2	T.0.0.4.0				→ C L 7
		1.3	A.0.0.4.2			N0048	FORM N [004 HC]
		1.4	C.0.1.1.7			"SCALE" ORDER	
		1.5	R.0.0.0.7				} INPUT & BINARIZE
		1.6	U.0.0.0.0				
		1.7	[ ]				SCALE TO C & 9.
		1.8	[ ]				STORE IN MEMORY
		1.9	B.0.1.1.8				
		2.0	S.0.0.5.6			1@11-1@29	
		2.1	T [ ]				EXIT FROM SEQUENTIAL FILL
		2.2	C.0.1.1.8				
		2.3	U.0.1.1.5				
		2.4	[ ]			TEMP.(0009)(0038)	
		2.5					
		2.6					
		2.7					
		2.8					
		2.9					
		3.0					
		3.1					

Conditional Stop Code



Carriage Return



Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
5.0.0.0						
1.0.0.0	<input checked="" type="checkbox"/>					
		0.0.0.0	B.0.1.4.3		A0230	
		0.1	C.0.0.4.4			
		0.2	X.P.0.0.3.8			} READ I.D. WORD
		0.3	X.I.0.0.0.0	<input checked="" type="checkbox"/>		
		0.4	H.0.2.4.7		ORIG. NO. (FOR P.)	
		0.5	T.0.0.2.1		→ P=8	
		0.6	S.0.2.4.2		1 @ 29	
		0.7	U.0.0.0.8	<input checked="" type="checkbox"/>		
		0.8	T [ ]		EXIT ON "ZERO" I.D. WORD	
		0.9	A.0.2.3.8		1 @ 29	
		1.0	N.0.2.6.0		1 @ 29	SHIFT LEFT 2 BITS
		1.1	E.0.1.3.3	<input checked="" type="checkbox"/>	5WKWKWJ	TRIM + DROP P
		1.2	X.H.6.3.0.2		N1	BEGIN TO BINARYISE Loc. + 9
		1.3	E.0.0.4.2		03J3J3J0	
		1.4	M.0.2.3.6		-6 @ 4	
		1.5	U.0.0.1.6	<input checked="" type="checkbox"/>		
		1.6	X.A.6.3.0.2		N1	
		1.7	X.H.6.3.0.3		N2	
		1.8	E.0.0.4.0		0WWWWW00	
		1.9	M.0.0.4.1	<input checked="" type="checkbox"/>	-34 @ 0	
		2.0	U.0.0.2.4			
		2.1	R.0.0.4.4			HERE: P=8
		2.2	U.0.0.1.0			
		2.3	X.Z.0.0.3.2	<input checked="" type="checkbox"/>		
		2.4	X.A.6.3.0.3		N2	
		2.5	Y.0.1.2.3			1 <sup>ST</sup> LOCATION TO STORE
		2.6	S.0.1.5.5		1 @ 7	
		2.7	E.0.2.4.9	<input checked="" type="checkbox"/>		DROP ADDRESS
		2.8	T.0.0.3.2			→ POS. 9
		2.9	X.C.6.3.0.1			COMPLEMENT NEGATIVE 9
		3.0	X.S.6.3.0.1			
		3.1	U.0.0.3.3	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.0.3.2	A.0.2.6.1		1 @ 7	
		3.3	M.0.1.6.2		1 @ 14	SHIFT 9. TAG: 29
		3.4	H.0.1.3.0		9 @ 29	
		3.5	U.0.0.3.7	<input checked="" type="checkbox"/>		
		3.6	X.Z.0.0.3.0		30 @ 29	
		3.7	B.0.2.2.3		70000000	
		3.8	E.0.2.4.7		ORIG. NO.	SAVE P
		3.9	U.0.0.4.3	<input checked="" type="checkbox"/>		
7.0.0.0.0.0.0.0.3		4.0	W.W.W.W.W.0.0			
		4.1	F.0.0.0.0.0.0			
		4.2	J.J.J.J.J.0			
		* 4.3	M.0.2.0.7	<input checked="" type="checkbox"/>	1 @ 24	SHIFT P TO 9 = 27
		4.4	[ ]		10230 OR A0023 OR TEMP.	
		4.5	X.H.6.3.0.3		4P @ 29	
		4.6	M.0.1.3.2		1 @ 2	
		4.7	U.0.0.4.8	<input checked="" type="checkbox"/>		
		4.8	A.0.2.2.7			10 OF TABLE OF 10 <sup>9</sup> @ 4P
		4.9	Y.0.0.6.0			
		5.0	B.0.0.3.6		30 @ 29	
		5.1	S.0.1.3.0	<input checked="" type="checkbox"/>	9 @ 29	
		5.2	X.S.6.3.0.3		04P @ 29	
		5.3	T.0.1.2.5			
		5.4	A.0.1.1.9			10 OF SHIFT TABLE
		5.5	Y.0.0.5.8	<input checked="" type="checkbox"/>		
		5.6	B.0.2.2.8		110134	
		5.7	Y.0.1.1.8			
		5.8	B.F. [ ]			SHIFT CONSTANT
		5.9	C.0.1.2.0	<input checked="" type="checkbox"/>		
		6.0	B.F. [ ]			10 <sup>9</sup> @ 4P
		6.1	X.C.6.3.0.0			
		6.2	X.P.0.0.2.0			READ NUMBER
		6.3	X.T.0.0.0.0	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

REASON 0.32 - INSPIRATION  
M0207

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.0.0	N.0.2.2.9		1 @ 28	SHIFT LEFT 3 BITS
		0.1	M.0.2.3.7		1 @ 2	SHIFT RIGHT 2 BITS
		0.2	T.0.1.1.0		→	NEGATIVE NUMBER
		0.3	U.0.1.0.4	<input checked="" type="checkbox"/>		
		0.4	S.0.1.4.7		1 @ 30	HERE: POSITIVE NUMBER
		0.5	T.0.1.3.7		→ NO. = 0	
		0.6	A.0.1.3.1		1 @ 30	
		0.7	R.0.2.4.3	<input checked="" type="checkbox"/>		} BINARYIZE } POSITIVE NUMBER
		0.8	U.0.2.4.4			
		0.9	U.0.1.1.8			
		1.0	E.0.1.4.6		1 WWWWWWQ	HERE NEG. NO.
		1.1	S.0.1.4.7	<input checked="" type="checkbox"/>	1 @ 30	
		1.2	T.0.0.0.0		→	NEGATIVE ZERO
		1.3	A.0.1.3.1		1 @ 30	
		1.4	R.0.2.4.3			} BINARYIZE NEGATIVE } NUMBER
		1.5	U.0.2.4.4	<input checked="" type="checkbox"/>		
		1.6	X.C.6.3.0.3			} COMPLEMENT
		1.7	X.S.6.3.0.3			
		1.8	U.[ ]			
		1.9	Z.0.1.4.8	<input checked="" type="checkbox"/>		
		2.0	[ ]		TEMP.	
		2.1	X.D.6.3.0.0		10P @ 4P	
		2.2	M.0.0.4.4		SCALE: SHIFT RIGHT	
		2.3	C.[ ]	<input checked="" type="checkbox"/>		STORE NUMBER
		2.4	U.0.2.5.6			
		2.5	X.C.6.3.0.4			HERE: SHIFT RIGHT TO SCALE
		2.6	B.0.2.4.8		40121	
		2.7	Y.0.1.1.8	<input checked="" type="checkbox"/>		
		2.8	B.0.1.1.9		Z0149	LO OF SHIFT TABLE
		2.9	U.0.1.3.9			
2.0.0.0.0.0.4		3.0	[ ]		TEMP.	
		3.1		<input checked="" type="checkbox"/>	1 @ 30	

Conditional Stop Code  Carriage Return REV.-8-2-57

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.3.2	2.0.0.0.0.0.0		1 @ 2	
		3.3	S.W.K.W.K.W.J			MASK
		3.4	D.0.1.2.0			SCALE: SHIFT LEFT
		3.5	X.D.6.3.0.0	<input checked="" type="checkbox"/>	10P @ 4P	
		3.6	U.0.1.2.3			
		3.7	X.C.6.3.0.2		0 → ACC.	HERE: NO. = 0
		3.8	U.0.1.2.3			
		3.9	X.S.6.3.0.4	<input checked="" type="checkbox"/>	+ / SHIFT /	
		4.0	Y.0.1.4.1			
		4.1	B.[ ]			SHIFT CONSTANT
		4.2	U.0.1.4.4			
		4.3	A.0.2.3.0	<input checked="" type="checkbox"/>		
		4.4	C.0.0.4.4			
		4.5	U.0.0.6.0			
2.0.0.0.0.4.5		4.6	1.W.W.W.W.W.W.Q			
		4.7		<input checked="" type="checkbox"/>	1 @ 30	
		4.8	7.W.W.W.W.W.W.Q		1 @ 0	TABLE OF SHIFTS
		4.9	4.0.0.0.0.0.0		1 @ 1	
		5.0	2.0.0.0.0.0.0		1 @ 2	
		5.1	1.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 3	
		5.2	8.0.0.0.0.0.0		1 @ 4	
		5.3	4.0.0.0.0.0.0		1 @ 5	
		5.4	2.0.0.0.0.0.0		1 @ 6	
		5.5	1.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 7	
		5.6	8.0.0.0.0.0.0		1 @ 8	
		5.7	4.0.0.0.0.0.0		1 @ 9	
		5.8	2.0.0.0.0.0.0		1 @ 10	
		5.9	1.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 11	
		6.0	8.0.0.0.0.0.0		1 @ 12	
		6.1	4.0.0.0.0.0.0		1 @ 13	
		6.2	2.0.0.0.0.0.0		1 @ 14	
		6.3	1.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 15	

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.2.0.0	8.0.0.0		1@16	
		0.1	4.0.0.0		1@17	
		0.2	2.0.0.0		1@18	
		0.3	1.0.0.0	<input checked="" type="checkbox"/>	1@19	
		0.4	8.0.0.		1@20	
		0.5	4.0.0.		1@21	
		0.6	2.0.0.		1@22	
		0.7	1.0.0.	<input checked="" type="checkbox"/>	1@23	
		0.8	8.0.		1@24	
		0.9	4.0.		1@25	
		1.0	2.0.		1@26	
		1.1	1.0.	<input checked="" type="checkbox"/>	1@27	
		1.2	8.		1@28	
		1.3	7.W.W.W.W.W.W.W.Q		10 <sup>0</sup> @0	TABLE OF 10 <sup>0</sup> @4 <sup>1</sup>
		1.4	5.0.0.0.0.0.0.0		10 <sup>1</sup> @4	
		1.5	3.2.0.0.0.0.0.0	<input checked="" type="checkbox"/>	10 <sup>2</sup> @8	
		1.6	1.W.4.0.0.0.0.0		10 <sup>3</sup> @12	
		1.7	1.3.8.8.0.0.0.0		10 <sup>4</sup> @16	
		1.8	.T.3.5.0.0.0.0		10 <sup>5</sup> @20	
		1.9	7.F.1.2.0.0.0	<input checked="" type="checkbox"/>	10 <sup>6</sup> @24	
		2.0	4.T.4.G.4.0.0		10 <sup>7</sup> @28	
		2.1	2.W.F.W.0.8.0		10 <sup>8</sup> @32	
		2.2	1.K.V.K.6.5.0		10 <sup>9</sup> @36	
		2.3	7.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	MASK	
		2.4	1.Q.1.Q.1.Q.0		MASK	
		2.5	1.Q.0.1.W.Q.0.0		MASK	
		2.6	6.2.0.0.0.0.0.0		-156@8	
		2.7	.Z.0.2.1.3	<input checked="" type="checkbox"/>		
		2.8	.U.0.1.3.4			
		2.9	X.Z.0.0.0.2		1@29	
		3.0	X.Z.0.0.0.0			
		3.1	X.A.6.3.0.3	<input checked="" type="checkbox"/>	N2	

Conditional Stop Code

Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.2.3.2	X.H.6.3.0.4		N2	
		3.3	F.0.2.6.2		1.W.W.4.0.0.0	
		3.4	M.0.2.6.3		-55536@16	
		3.5	U.0.2.3.9	<input checked="" type="checkbox"/>		
		3.6	K.0.0.0.0.0.0		-6@4	
		3.7	Z.0.0.0.0.0.0		1@2	
		3.8	4.		1@29	
		3.9	X.A.6.3.0.4	<input checked="" type="checkbox"/>	N3	
		4.0	U.0.2.4.3			
		4.1				
		4.2	X.Z.0.0.0.1			
		4.3	U.L. . . . .	<input checked="" type="checkbox"/>	EXIT FROM BIN SIZE ROUTINE	
		4.4	H.0.1.3.0		N1	
		4.5	F.0.2.2.4		01010100	
		4.6	U.0.2.5.0			
		4.7	E. . . . .	<input checked="" type="checkbox"/>		
		4.8	U.0.1.2.1			
		4.9	W.W.W.W.0.0.0		MASK	
		5.0	M.0.2.3.6		-6@4	
		5.1	A.0.1.3.0	<input checked="" type="checkbox"/>	N1	
		5.2	X.H.6.3.0.3		N2	
		5.3	F.0.2.2.5		10010000	
		5.4	M.0.2.2.6		-156@8	
		5.5	U.0.2.3.1	<input checked="" type="checkbox"/>		
		5.6	B.0.2.4.2		1@29	
		5.7	H.0.1.2.3			
		5.8	U.0.1.2.3			
		5.9	U.0.0.6.2	<input checked="" type="checkbox"/>		
		6.0	4.		1@29	
		6.1	1.0.0.0.0.0		1@7	
		6.2	1.W.W.0.0.0.0			
		6.3	9.3.8.8.0.0.0.0	<input checked="" type="checkbox"/>	-55536@16	

Conditional Stop Code

Carriage Return



NOTES

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NOTES

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Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		0.0.0.0	U.S.]			EXIT	
		0.1	B.0.1.3.7			U0159	
		0.2	X.P.0.0.4.5				
		0.3	C.0.2.6.3		<input checked="" type="checkbox"/>		
		0.4	X.I.0.0.0.0				
		0.5	N.0.1.2.7				
		0.6	E.0.5.4.9			47KWKWJ	
		0.7	S.0.4.3.6		<input checked="" type="checkbox"/>	1@30	
		0.8	T.0.0.0.0			→ ZERO	I.D. WORD
		0.9	A.0.5.4.5			1@30	
		1.0	X.H.6.3.5.3			N.	
		1.1	E.0.1.4.0		<input checked="" type="checkbox"/>	03:3J3J0	
		1.2	M.0.4.0.7			K000000	
		1.3	X.A.6.3.5.3			N.	
		1.4	X.H.6.3.5.3			N2	
		1.5	E.0.1.5.1		<input checked="" type="checkbox"/>	0WWWWW00	
		1.6	M.0.5.5.0			F000000	
		1.7	X.A.6.3.5.3			N2	
		1.8	Y.0.1.5.7			Lo To STORE	
		1.9	U.0.0.2.6		<input checked="" type="checkbox"/>		
		2.0	X.S.6.3.0.6			9 of P@30	
		2.1	X.A.6.3.0.0				
		2.2	T.0.5.5.1				
		2.3	S.0.4.0.2		<input checked="" type="checkbox"/>	32@30	
		2.4	T.0.1.5.5				
		2.5	U.0.1.5.2			→ ERROR HALT	
		2.6	M.0.0.4.8			1@14 SHIFT P to 29	
		2.7	S.0.1.4.9		<input checked="" type="checkbox"/>	1@21	
		2.8	T.0.1.3.2			→ P 70	
		2.9	X.H.6.3.0.1			HERE PLo	
		3.0	D.0.1.1.6			3@4 P.3@25	
		3.1	A.0.4.0.3		<input checked="" type="checkbox"/>	.75@25	

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		0.0.3.2	E.0.3.1			WWWWWWJO	
		3.3	M.0.1.5.0			-1@5	
		3.4	X.C.6.3.0.6			9 of P@30	
		3.5	B.0.1.2.1		<input checked="" type="checkbox"/>	M[Lo Table]	
		3.6	X.A.6.3.0.1			P@29	
		3.7	C.0.1.5.9				
		3.8	X.P.0.0.1.7				
		3.9	U.0.0.5.7		<input checked="" type="checkbox"/>		
		4.0	B.0.4.0.5			1@29	
		4.1	A.0.1.5.7				
		4.2	C.0.1.5.7				
		4.3	U.0.0.3.8		<input checked="" type="checkbox"/>		
		4.4	X.A.6.3.0.2				
		4.5	U.0.1.6.3				
		0.0.0.0.0.3				2	(0060)
		4.6					
		4.7			<input checked="" type="checkbox"/>	3@	
		4.8	2.0.0.0.0			1@14 (0026)	
		4.9	A.0.4.0.0			9@29	
		5.0	X.H.6.3.0.1			Pn @29	
		5.1	D.0.1.1.6		<input checked="" type="checkbox"/>	3@4 P.3@25	
		5.2	A.0.4.0.3			.75@25	
		5.3	M.0.1.3.9			1@5	
		5.4	X.C.6.3.0.6			9 of P@30	
		5.5	B.0.1.4.1		<input checked="" type="checkbox"/>	D[Lo of D Table]	
		5.6	U.0.0.3.6				
		5.7	X.I.0.0.0.0				
		5.8	D.0.4.3.7			1@1	
		5.9	E.0.1.3.8		<input checked="" type="checkbox"/>	3WWWWWW@ Drop "+" sign	
		6.0	S.0.0.4.6			1@30	
		6.1	T.0.1.5.3			→ Number = 0	
		6.2	S.0.2.2.0			1@2-1@30	
		6.3	T.0.1.0.9		<input checked="" type="checkbox"/>	→ positive word	

Conditional Stop Code  Carriage Return

Problem FLT. PT. DATA INPUT + OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		0.1.0.0	S0.436		1@30	
		0.1	T0.001		→ "minus zero"	
		0.2	A0.545		1@30	
		0.3	R0.239	<input checked="" type="checkbox"/>	} Binarize + float	
		0.4	U0.240		} neg. number	
		0.5	XC6.327			
		0.6	XS6.327			
		0.7	U0.112	<input checked="" type="checkbox"/>		
		0.8	XZ0.001		1@29 (0143)	
		0.9	A0.252		1@2	
		1.0	R0.239		} Binarize + float	
		1.1	U0.240	<input checked="" type="checkbox"/>	} positive number	
		1.2	XC6.327			
		1.3	U0.117			
,00.00003'		1.4	1.WW0000			
		1.5	93880000	<input checked="" type="checkbox"/>		
		1.6	2666666		-3@4	
		1.7	XB6.360			
		1.8	E0.147		Q	
		1.9	U0.020	<input checked="" type="checkbox"/>		
		2.0	XZ0.003		3@29 or 6@30	
		2.1	M0.221			
		2.2	XH6.301		Pu	
		2.3	A0.152	<input checked="" type="checkbox"/>	9@29	
		2.4	U0.051			
,0000007'		2.5	G2000000		(0241)	
		2.6	WWWWWW00		(0161)	
		2.7	4	<input checked="" type="checkbox"/>		
		2.8	40000000		1@1 (0163)	
		2.9	32		25@30	
		3.0	8JJJK00		-.9@0 (0208)	
		3.1	1Q01WQ00	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem FLT. PT. DATA INPUT + OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		0.1.3.2	A0.254		1@21-9@29	
		3.3	T0.049		→ P29	
		3.4	R0.263		Here: P ≥ 9	
		3.5	U0.122	<input checked="" type="checkbox"/>		
		3.6	D0.422		10 <sup>9</sup> @30	
		3.7	U0.159			
,00.00003'		3.8	3.WWWW0000		(0059)	
		3.9	4000000	<input checked="" type="checkbox"/>	1@5(0053)(0203)(0260)	
		4.0	3JJJJ00			
		4.1	D0.221		D[Lo of table]	
		4.2	C0.507		character to print	
		4.3	S0.108	<input checked="" type="checkbox"/>	1@29	
		4.4	XA6.330		Print stroke ctr.	
		4.5	U0.554			
,00.00007'		4.6	WWWWWW00		(0217)	
		4.7	Q	<input checked="" type="checkbox"/>	(0118)	
		4.8	8		9@30 (0212)	
		4.9	400		1@21	
		5.0	WJ0.0000		-1@5 (0033)	
		5.1	WWWWWW00	<input checked="" type="checkbox"/>	(0015)	
		5.2	24		9@29 + Error Halt	
		5.3	XC6.304		0 → Acc.	
		5.4	U0.157			
		5.5	XA6.327	<input checked="" type="checkbox"/>	Fraction	
		5.6	A0.342		32@30	
		5.7	CL			
		5.8	U0.040			
		5.9	[	<input checked="" type="checkbox"/>	Scale	
		6.0	T0.152		→ Error	
		6.1	E0.126		WWWWW00	
		6.2	A0.120		6@30	
		6.3	S0.128	<input checked="" type="checkbox"/>	1@1	

Conditional Stop Code  Carriage Return

LGP-30 CODING SHEET

PREPARED FOR:			PAGE <b>5</b> OF <b>12</b>
JOB NO.	PROGRAM NO. <b>11.6-12.6</b>	PROGRAM PREPARED BY: <b>M. KAYE</b>	PROGRAM CHECKED BY:
PROBLEM: <b>FLT. PT. DATA INPUT &amp; OUTPUT</b>			DATE <b>7.16.59 (rev)</b>
PROGRAM INPUT CODES			TRACK

PROGRAM INPUT CODES	STOP	LOCATION	INSTRUCTION		STOP	CONTENTS OF ADDRESS	NOTES
			OPERATION	ADDRESS			
	1	<input checked="" type="checkbox"/>					
	1	<input checked="" type="checkbox"/>					
		0210	T	0215		-> one leading zero	
		1011	A	0437		1@1	
		1012	U	0231			
		1013	A	0139		X 1@5	
		1014	X	H6340			
		1015	E	0341		WWWWWJ0	
		1016	X	H6342			
		1017	U	0210		X	
		1018	E	0130		-9@0	
		1019	U	0431			
		1110	M	0253		14@31	
		1111	X	A6340		X	
		1112	S	0148		4@30	
		1113	X	A6342			
		1114	U	0258			
		1115	A	0437		X 1@1	
		1116	X	H6302			
		1117	E	0146		WWWWWJW0	
		1118	S	0404		1@30	
		1119	U	0044		X	
10009011		1210	1	WWWWWWQR		1@2-1@30 (0062)	
		1211	7	WWWWWWQR		10@0	
		1212	5	00000000		10'@4	
		1213	6	40000000		X 10 <sup>2</sup> @7	
		1214	7	K0000000		10 <sup>3</sup> @10	
		1215	4	Q2000000		10 <sup>4</sup> @14	
		1216	6	15800000		10 <sup>5</sup> @17	
		1217	7	F1200000		X 10 <sup>6</sup> @20	
		1218	4	J4G4000		10 <sup>7</sup> @24	
		1219	5	H5Q1000		10 <sup>8</sup> @27	
		1310	7	7359400		10 <sup>9</sup> @30	
		1311	X	H6360		X	

LGP-30 CODING SHEET Page **6** of **12**

Job No. \_\_\_\_\_ Prog. No. **11.6-12.6** Prep. by **M. KAYE** Ck'd. by \_\_\_\_\_ Date **9-11-58**

Problem **FLT. PT. DATA INPUT & OUTPUT** Track \_\_\_\_\_

Program Input Codes	STOP	Location	Instruction Op.	Address	STOP	Contents of Address	Notes
		<input checked="" type="checkbox"/>					
		0232	B	0047		30	
		33	X	E6319			
		34	S	0120		6@30	
		35	X	C6300		X	
		36	B	0401		WWWWW80	
		37	U	0238			
		38	X	E6360			
		39	U	L		X	
		40	X	H6305		N1	
		41	E	0406		01Q1Q1Q0	
		42	M	0407		-6@4	K0000000
		43	X	A6305		X N1	
		44	X	H6305		N2	
		45	E	0131		1001WQ00	
		46	M	0125		-155@8	G2000000
		47	X	A6305		X N2	
		48	X	H6320		N3	
		49	E	0114		1WWQ0000	
		50	M	0115		-55536@16	93880000
		51	U	0255		X	
00000003		52	2	00000000		1@2 (0189)	
		53		Q		14@31 (0210)	
		54		3KT		1@21-9@29 (0132)	
		55	X	A6320		X N3	
		56	D	0421		1@5	
		57	A	0129		25@30	
		58	S	0337		1@5	
		59	T	0203		X -> 5 leading zeros	
		60	A	0139		1@5	
		61	X	H6319			
		62	E	0341		WWWWWJ00	
		63	U	L		X	

Job No. \_\_\_\_\_ Prog. No. 116-12.6 Prep. by M. KAYE Ck'd. by \_\_\_\_\_

Problem ELT. PT. DATA INPUT & OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		0.3.0.0	XC	6343	Char.	
		0.1	XB	6337	exp. @30	
		0.2	T	0304	→ Exp. <0	
		0.3	U	0411	<input checked="" type="checkbox"/>	
		0.4	B	0333	U0351 Exp. <0	
		0.5	C	0348		
		0.6	B	0442	Print " "	
		0.7	C	0336	<input checked="" type="checkbox"/>	
		0.8	S	0558	1@30	
		0.9	XH	6345	-1@30	
		1.0	XC	6332	-1@30	
		1.1	XS	6337	<input checked="" type="checkbox"/> Complement neg. exp.	
		1.2	U	0313		
		1.3	M	0363	1@30 more left 1 bit	
		1.4	A	0350	Lo table	
		1.5	Y	0344	<input checked="" type="checkbox"/>	
		1.6	U	0318		
		1.7	T	0338		
		1.8	B	0554	7@29	
		1.9	XC	6330	<input checked="" type="checkbox"/> Print stroke ctr.	
		2.0	U	0321		
		2.1	XB	6343		
		2.2	T	0423	→ Char. <0	
		2.3	S	0402	<input checked="" type="checkbox"/> 1@25	
		2.4	T	0408	→ Char. =0	
		2.5	XC	6311	1 char/1	
		2.6	B	0562	Print "Space"	
		2.7	U	0328	<input checked="" type="checkbox"/>	
		2.8	Y	0443		
		2.9	U	0344		
000,0003		3.0		8	4@30	
		3.1		8.8	<input checked="" type="checkbox"/> For rounding exp.	

Conditional Stop Code

Carriage Return

Royal McBee Corporation

Job No. \_\_\_\_\_ Prog. No. 116-12.6 Prep. by M. KAYE Ck'd. by \_\_\_\_\_

Problem ELT. PT. DATA INPUT & OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		0.3.3.2		10	Mask	
		3.3	U	0351	Dummy inst.	
		3.4	M	0363	1@30	
		3.5	U	0300	<input checked="" type="checkbox"/>	
0.0.0.0.0.9		3.6	[		Print " " or U0338	
		3.7	4	000000	1@5 & Delay	
		3.8	8	180J	Tab	
		3.9	[		<input checked="" type="checkbox"/> exit "R" to here	
		4.0	J	JJ	.1@0	
		4.1	W	WWW	(0205) (0262)	
		4.2		40	32@30 (0156)	
		4.3	7	WWW	<input checked="" type="checkbox"/> For rounding test	
		4.4	[		Pick up table const.	
		4.5	XH	6324		
		4.6	E	0332	1@ drop char	
		4.7	XH	6333	<input checked="" type="checkbox"/> (exp) 10	
		4.8	[		XB6324 or U0351	
		4.9	U	0353		
		5.0	B	0511	Lo table Dummy order	
		5.1	B	0430	<input checked="" type="checkbox"/> .1@0	
		5.2	XD	6324	table entry	
		5.3	XM	6311	1 char/1	
		5.4	S	0340	.1@0	
		5.5	T	0456	<input checked="" type="checkbox"/> → /NO. / <.1	
		5.6	A	0428	.1@0	
		5.7	S	0343	7WWW	
		5.8	T	0431	→ To round	
		5.9	XB	6345	<input checked="" type="checkbox"/> ±1@30 Here; cannot round	
		6.0	XA	6333	(exp) 10@30	
		6.1	XC	6333		
		6.2	U	0208		
0.2.0.0.0.9		6.3		2	<input checked="" type="checkbox"/> 1@30	

Conditional Stop Code

Carriage Return

Royal McBee Corporation

Problem FLT. PT. DATA INPUT & OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Step	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.4.0.0	24		9@9	
		0.1	WWW.WWW.W8.0			
		0.2	4.0		32@30(0023)(0323)(0551)	
		0.3	3.0	<input checked="" type="checkbox"/>	.75@25	
		0.4	2		1@30	
		0.5	4		1@29	
		0.6	1.0.1.0.1.0.0			
		0.7	K.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>		
		0.8	B.0.4.5.0		Print "Space" Here onward	
		0.9	C.0.4.4.3			
		1.0	U.0.3.5.7			
		1.1	B.0.5.6.1	<input checked="" type="checkbox"/>	XB6324 Here: Exp >= 0	
		1.2	C.0.3.4.8			
		1.3	B.0.5.6.3		U0338	
		1.4	C.0.3.3.6			
		1.5	B.0.5.5.8	<input checked="" type="checkbox"/>	1@30	
		1.6	XC.6.3.4.5		1@30	
		1.7	XC.6.3.3.2		0	
		1.8	XC.6.3.3.3		0	
		1.9	XB.6.3.3.7	<input checked="" type="checkbox"/>	EXP.	
		2.0	U.0.3.1.3			
,0.0.0.0.0.0.2		2.1	4.0.0.0.0.0.0		1@5	
		2.2	7.7.3.5.9.4.0.0		109@30 (0136)	
		2.3	XC.6.3.0.3	<input checked="" type="checkbox"/>	} Complement	
		2.4	XS.6.3.0.3		} Characteristic	
		2.5	XC.6.3.1.1		1 char/	
		2.6	B.0.4.4.1		Print "-"	
		2.7	U.0.3.2.8	<input checked="" type="checkbox"/>		
,0.0.0.0.0.0.4		2.8	J.J.J.J.J.J.J.		.1@0	
		2.9	F		10@31	
		3.0	J.J.J.J.J.J.J.		.1@0	
		3.1	8.1.7.0.J	<input checked="" type="checkbox"/>	Dec. Pt.	

Conditional Stop Code  Carriage Return

Problem FLT. PT. DATA INPUT & OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Step	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.4.3.2	A.0.5.1.1		7WWWWW00	
		3.3	R.0.5.5.5		} Print char.	
		3.4	U.0.5.0.2		(7 digits)	
		3.5	U.0.4.4.3	<input checked="" type="checkbox"/>		
,0.0.0.0.0.0.2		3.6	2		1@30	
		3.7	4.0.0.0.0.0.0.0		1@1(0058)(0201)(0215)	
		3.8	B.0.3.1.7		T0338 Here: exp = 0	
		3.9	C.0.5.5.5	<input checked="" type="checkbox"/>	Print exit	
		4.0	U.0.5.5.8			
		4.1	XZ.0.7.2.0		Dummy print "-"	
		4.2	XP.0.7.0.8		" " "	
		4.3	PL	<input checked="" type="checkbox"/>	Print sign of char.	
		4.4	B.0.3.3.0		2@29	
		4.5	XC.6.3.3.0			
		4.6	XB.6.3.3.2		000-1@30	
		4.7	XA.6.3.3.3	<input checked="" type="checkbox"/>	(exp.)10	
		4.8	D.0.4.4.9		100@30	
		4.9	XZ.0.0.5.0		Delay & 100@30	
		5.0	XP.0.3.1.5		"Space"	
		5.1	S.0.3.3.0	<input checked="" type="checkbox"/>	8@30	
		5.2	T.0.4.3.8		-> exp = 0	
		5.3	R.0.5.5.5		} Print exp.	
		5.4	U.0.5.5.7		(2 digits)	
		5.5	U.0.3.3.6	<input checked="" type="checkbox"/>		
		5.6	A.0.4.2.8		.1@0 Here: No < .1	
		5.7	N.0.4.2.9		10@31	
		5.8	XC.6.3.2.0		Temp. for 1/No.1	
		5.9	XS.6.3.4.5	<input checked="" type="checkbox"/>	±1@30	
		6.0	XA.6.3.3.3		(exp.)10@30	
		6.1	XC.6.3.3.3			
		6.2	XB.6.3.2.0		Pick up 1/No.1	
		6.3	U.0.3.5.7	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return



Problem FLT. PT. DATA INPUT & OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.5.0.0	N.0.4.2.9		10 @ 31	
		0.1	E.0.5.4.4		7 W W W W W W W Q	Drop sign
		0.2	X.H.6.3.3.1			1 No. 1 to Print
		0.3	M.0.5.4.6	<input checked="" type="checkbox"/>	10 @ 21	
		0.4	E.0.5.4.7		3 J 0 0	
		0.5	A.0.5.4.8			Print inst.
		0.6	U.0.1.4.2			
		0.7	[			<input checked="" type="checkbox"/> Print one digit
		0.8	X.H.6.3.3.0			Print stroke ctr.
		0.9	X.B.6.3.3.1			1 No. 1 to print
		1.0	U.0.5.0.0			
0.0.0.0.0.4.0		1.1	7 W W W W W W W Q	<input checked="" type="checkbox"/>	2 <sup>0</sup> X 10 <sup>0</sup> @ 0 + 0 @ 30	
		1.2	1.9.9.9.9.F.2		2 <sup>1</sup> X 10 <sup>-1</sup> @ 0 + 1 @ 30	
		1.3	3.3.3.3.3.4.2		2 <sup>2</sup> X 10 <sup>-1</sup> @ 0 + 1 @ 30	
		1.4	6.6.6.6.6.6.2		2 <sup>3</sup> X 10 <sup>-1</sup> @ 0 + 1 @ 30	
		1.5	1.4.7.E.0.1.4.4	<input checked="" type="checkbox"/>	2 <sup>4</sup> X 10 <sup>-2</sup> @ 0 + 2 @ 30	
		1.6	2.8.W.5.J.2.F.4		2 <sup>5</sup> X 10 <sup>-2</sup> @ 0 + 2 @ 30	
		1.7	5.1.Q.G.8.5.2.4		2 <sup>6</sup> X 10 <sup>-2</sup> @ 0 + 2 @ 30	
		1.8	1.0.6.2.4.K.Q.6		etc.	
		1.9	2.0.J.4.9.6.F.6	<input checked="" type="checkbox"/>		
		2.0	4.1.8.9.3.7.4.6			
		2.1	K.1.6.7.1.8.8			
		2.2	1.F.3.6.0.2.0.8			
		2.3	3.9.6.K.J.5.Q.8	<input checked="" type="checkbox"/>		
		2.4	6.8.K.G.8.G.F.8			
		2.5	1.4.W.8.G.5.8.F			
		2.6	2.9.W.1.6.6.2.F			
		2.7	5.3.Q.2.K.6.2.F	<input checked="" type="checkbox"/>		
		2.8	1.0.J.6.W.7.F.J			
		2.9	2.1.8.K.Q.W.4.J			
		3.0	4.3.1.G.K.Q.8.J		2 <sup>9</sup> X 10 <sup>-6</sup> @ 0 + 6 @ 30	
		3.1	K.6.G.W.9.4.Q	<input checked="" type="checkbox"/>	2 <sup>20</sup> X 10 <sup>-7</sup> @ 0 + 7 @ 30	

Conditional Stop Code

Carriage Return

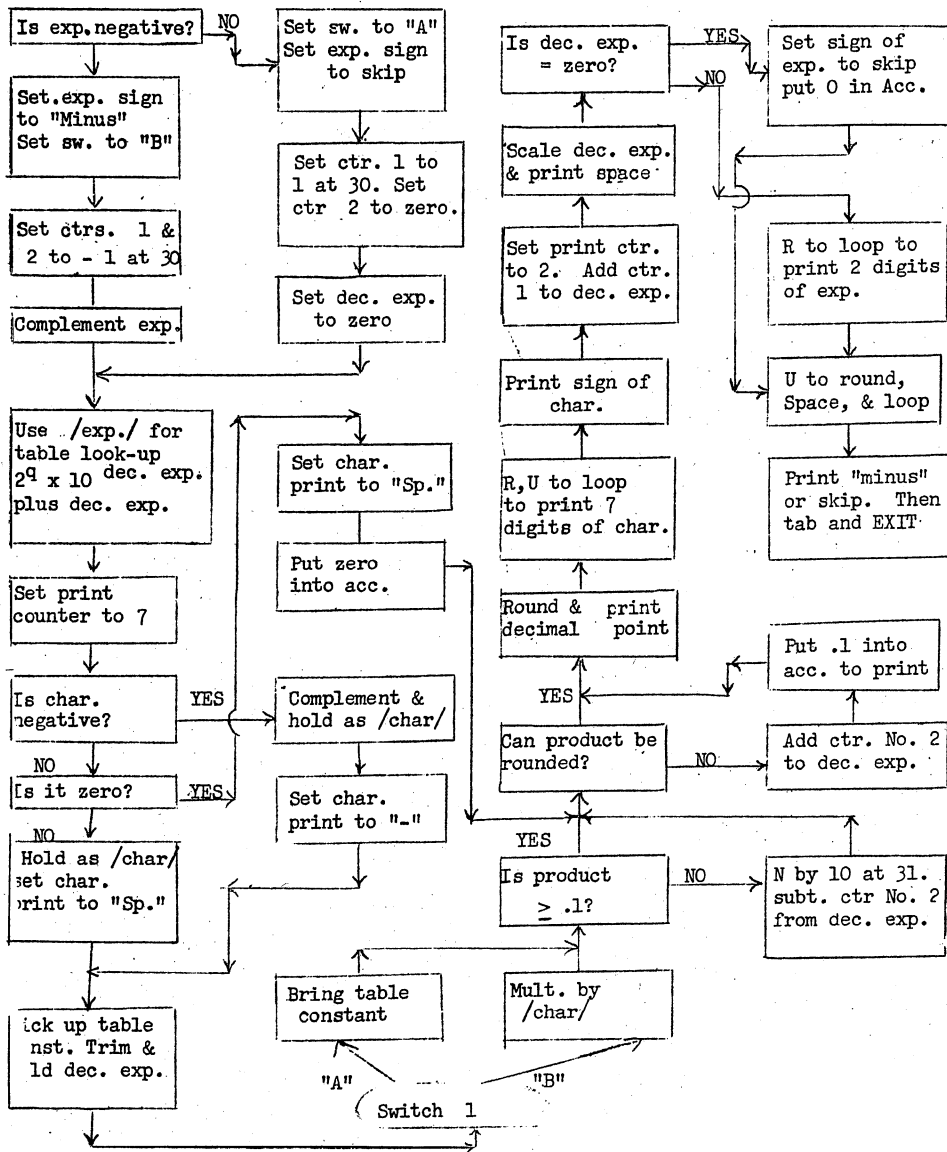
Problem FLT. PT. DATA INPUT & OUTPUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.5.3.2	1.F.K.T.W.2.F.Q		2 <sup>21</sup> X 10 <sup>-7</sup> @ 0 + 7 @ 30	
		3.3	3.5.F.W.Q.5.4.Q		2 <sup>22</sup> X 10 <sup>-7</sup> @ 0 + 7 @ 30	
		3.4	6.6.5.W.J.F.0.0			
		3.5	1.5.7.9.8.W.3.0	<input checked="" type="checkbox"/>		
		3.6	2.F.W.3.1.K.9.0			
		3.7	5.5.Q.6.3.G.3.0			
		3.8	1.1.2.Q.0.G.G.2			
		3.9	2.2.5.J.1.8.3.2	<input checked="" type="checkbox"/>		
		4.0	4.4.6.8.2.W.9.2		2 <sup>29</sup> X 10 <sup>-9</sup> @ 0 + 9 @ 30	
		4.1	K.G.0.7.0.1.4		2 <sup>30</sup> X 10 <sup>-10</sup> @ 0 + 10 @ 30	
		4.2	1.G.7.J.Q.0.3.4		2 <sup>31</sup> X 10 <sup>-10</sup> @ 0 + 10 @ 30	
		4.3	3.6.W.9.G.W.G.4	<input checked="" type="checkbox"/>	2 <sup>32</sup> X 10 <sup>-10</sup> @ 0 + 10 @ 30	
		4.4	7.W.W.W.W.W.W.Q		Mask	
		4.5			2	1 @ 30
		4.6	2.8.0.0			10 @ 21
		4.7	3.1.J.0.0	<input checked="" type="checkbox"/>		Mask
		4.8	8.0.2.9.0			
		4.9	4.7.K.W.K.W.J			Mask
		5.0	F.0.0.0.0.0.0.0			
		5.1	A.0.4.0.2	<input checked="" type="checkbox"/>	32 @ 30	
		5.2	T.0.1.5.3			→ Exp ← - 31
		5.3	U.0.1.5.5			
		5.4	X.Z.0.0.0.7			Delay & 7 @ 29
		5.5	T[	<input checked="" type="checkbox"/>		→ Finished Printing
		5.6	U.0.5.0.7			
		5.7	A.0.3.3.1			Round exp.
0.0.0.0.0.0.2		5.8			2	
		5.9	8.0.3.6.0	<input checked="" type="checkbox"/>		"Space"
		6.0	U.0.5.0.2			
		6.1	X.B.6.3.2.4			Dummy order
		6.2	X.Z.0.3.0.8			" "
		6.3	U.0.3.3.8	<input checked="" type="checkbox"/>		" "

Conditional Stop Code

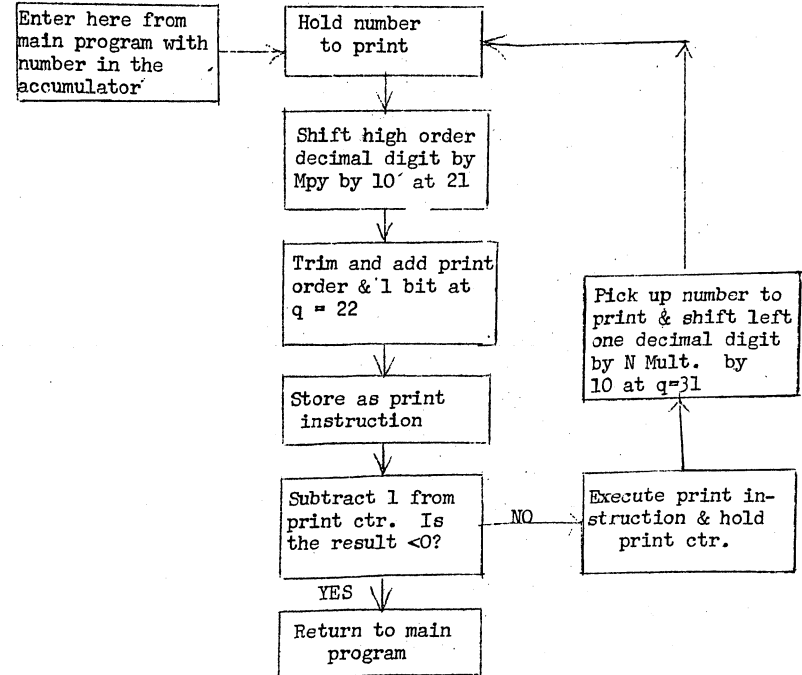
Carriage Return

ROYAL MCBEE CORPORATION  
 ELECTRONIC COMPUTER DEPARTMENT  
 FLOW DIAGRAM OF DATA OUTPUT 7  
 (Program 12.6)

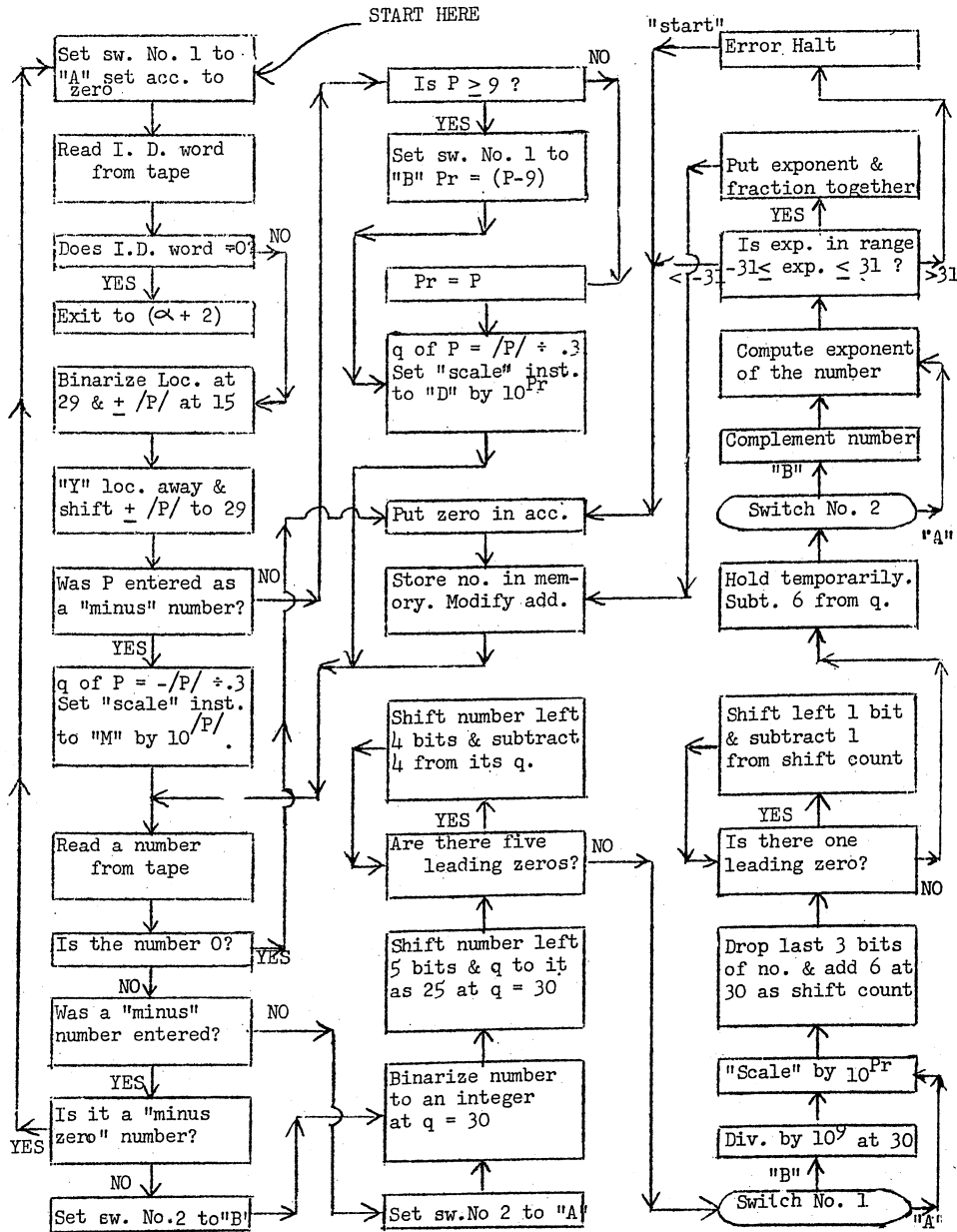


FLOW DIAGRAM OF DATA OUTPUT 7  
 (Program 12.6)

LOOP TO PRINT DIGITS OF CHARACTERISTIC AND EXPONENT



FLOW DIAGRAM OF DATA INPUT NO. 7  
(Program 11.6)



Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
2.0.0.0						
1.0.0.0	<input checked="" type="checkbox"/>					
		0.0.0.0	T.0.0.0.4			→ NEG. NO. TO PRINT
		0.1	H.0.0.2.3		/N/	
		0.2	B.0.0.2.4		PRINT SPACE	
		0.3	U.0.0.1.1	<input checked="" type="checkbox"/>		
		0.4	C.0.0.4.1			} COMPLEMENT NEG. NO.
		0.5	S.0.0.4.1			
		0.6	U.0.0.0.8			
		0.7	T.0.0.5.9	<input checked="" type="checkbox"/>	(0035) FOR	SWITCH → A. POS
		0.8	H.0.0.2.3		/N/	
		0.9	U.0.0.1.0			
		1.0	B.0.1.2.5		PRINT "MINUS"	
		1.1	Y.0.0.6.1	<input checked="" type="checkbox"/>		PRINT INSTRUCTION
		1.2	B.L. ]		x + 2	CODE NO @ 29
		1.3	H.0.1.2.8		PRINT STROKE CTR.	
		1.4	H.0.1.0.0		PRINT STROKE CTR.	
		1.5	A.0.0.5.8	<input checked="" type="checkbox"/>	LO OF TABLE	OF 10°
		1.6	Y.0.0.3.8			
		1.7	U.0.0.3.2			
2.0.0.0.0.0.0.7		1.8		4	1 @ 29 (0032)	
		1.9			<input checked="" type="checkbox"/>	
		2.0				
		2.1				
		2.2				
		2.3	[ ]		<input checked="" type="checkbox"/> /N/ (0001) (0008) (0037)	
		2.4	O.3.F.0		PRINT "SPACE" (0002)	
		2.5	X.P.2.3.0.4		PRINT DEC. PT.	
		2.6	B.0.0.4.5		T.0.1.3.0	
		2.7	Y.0.1.2.2	<input checked="" type="checkbox"/>	SWITCH	SWITCH → B POSITION
		2.8	B.0.0.5.7		8 @ 29	
		2.9	S.0.1.2.8		CODE NO @ 29	
		3.0	T.0.1.3.0			→ IF CODE NO. = 9
		3.1	U.0.1.2.3	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return REV. 3-20-57

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.0.3.2	B.0.0.1.8		1 @ 29	
		3.3	A.0.0.1.2		L (x + 2)	
		3.4	Y.0.0.5.6		EXIT	
		3.5	B.0.0.0.7	<input checked="" type="checkbox"/>	0059	SWITCH
		3.6	Y.0.1.2.2			SWITCH → A POSITION
		3.7	B.0.0.2.3		/N/	
		3.8	D.L. ]		10°	
		3.9	U.0.1.3.4	<input checked="" type="checkbox"/>		
		4.0				
		4.1	[ ]		PRINT L + TEMP. (0004) (0005)	
		4.2	H.0.1.0.0		PRINT STROKE CTR. @ 29	
		4.3	B.0.1.2.9	<input checked="" type="checkbox"/>	N TO PRINT	
		4.4	U.0.0.4.8			
		4.5	T.0.1.3.0		(0026)	
		4.6				
		4.7	X.P.0.2.2.0	<input checked="" type="checkbox"/>	(0118)	
		4.8	N.0.1.2.7		10 @ 31	
		4.9	E.0.1.1.4		7 WWWWWW R	DROP SIGN
		5.0	H.0.1.2.9		N TO PRINT	
		5.1	U.0.1.1.6	<input checked="" type="checkbox"/>		
		5.2	X.Z.4.0.0.0		10 @ 21 (0116)	
		5.3	X.Z.6.0.0.0		MASK (0117)	
		5.4	X.P.2.4.4.0		TAB	
		5.5	X.Z.0.0.0.0	<input checked="" type="checkbox"/>	DELAY	3
		5.6	U.L. ]		EXIT	
		5.7	X.Z.0.0.0.8		8 @ 29 (0038)	
		5.8	Z.0.1.0.1		LO TABLE (0015)	
		5.9	X.Z.0.0.3.1	<input checked="" type="checkbox"/>	DELAY	
		6.0	U.0.0.2.5			
		6.1	P.L. ]		PRINT "-" OR "SP"	
		6.2	U.0.0.5.0			
2.0.0.0.0.0.1.7		6.3		4	<input checked="" type="checkbox"/> 1 @ 29 (0120)	

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 12-0A Prep. by M.K. Ck'd. by \_\_\_\_\_  
Problem DATA OUTPUT #1 SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>				
		0,1,0,0	[ ]	PRINT STROKE	CTR. @ 29
		0,1	7.W.W.W.W.W.W.Q	10° @ 0	TABLE OF 10°
		0,2	5,0,0,0,0,0,0,0	10' @ 4	
		0,3	6,4,0,0,0,0,0,0	<input checked="" type="checkbox"/> 10² @ 7	
		0,4	7,K,0,0,0,0,0,0	10³ @ 10	
		0,5	4,Q,0,0,0,0,0,0	10⁴ @ 14	
		0,6	6,I,F,0,0,0,0,0,0	10⁵ @ 17	
		0,7	7,K,L,0,0,0,0,0,0	<input checked="" type="checkbox"/> 10⁶ @ 20	
		0,8	4,J,4,5,4,0,0,0,0	10⁷ @ 24	
		0,9	5,W,5,0,1,0,0,0,0	10⁸ @ 27	
		1,0	7,7,3,5,9,4,0,0,0	10⁹ @ 30	
		1,1		<input checked="" type="checkbox"/>	
		1,2			
		1,3			
		1,4	7.W.W.W.W.W.W.Q	(0049)	
		1,5		<input checked="" type="checkbox"/>	
		1,6	M,0,0,5,2	10 @ 21	
		1,7	F,0,0,5,3	XZ6000	DROP ALL BUT 4 TRACK BITS
		1,8	A,0,0,4,7	XP0320	
		1,9	C,0,0,4,1	<input checked="" type="checkbox"/> PRINT INST.	
		2,0	S,0,0,6,3	1 @ 29	
		2,1	A,0,1,0,0	PRINT STROKE	CTR. @ 29
		2,2	T,L, ]	T0059 or T0130	SWITCH
		2,3	X,Z,0,0,0,2	<input checked="" type="checkbox"/> DELAY	{A-T0059 {B-T0130
		2,4	U,0,0,4,1		
		2,5	7,F,0	PRINT "-"	(0010)
		2,6			
		2,7	F	<input checked="" type="checkbox"/> 10 @ 31	
		2,8	[ ]	CODE NO @ 29	(0013) (0029)
		2,9	[ ]	NO TO PRINT	(0043) (0050)
		3,0	X,Z,0,0,0,2	DELAY	
		3,1	U,0,0,5,4	<input checked="" type="checkbox"/>	

Conditional Stop Code

Carriage Return

Royal McBee Corporation

Job No. \_\_\_\_\_ Prog. No. 12-0A Prep. by M.K. Ck'd. by \_\_\_\_\_  
Problem DATA OUTPUT #1 SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>				
		3,1,3,2			
		3,3			
		3,4	H,0,1,1,3		
		3,5	U,0,1,3,7	<input checked="" type="checkbox"/>	
		3,6	X,Z,0,0,0,1		
		3,7	S,0,1,5,2	1 @ 0	
		3,8	T,0,1,4,0		
		3,9	U,0,1,5,5	<input checked="" type="checkbox"/>	
		4,0	C,0,1,2,6		
		4,1	S,0,0,6,3	1 @ 29	
		4,2	A,0,1,0,0		
		4,3	T,0,1,5,5	<input checked="" type="checkbox"/>	
		4,4	X,P,0,3,0,2		
		4,5	H,0,1,0,0		
		4,6	B,0,1,1,3		
		4,7	N,0,1,2,7	<input checked="" type="checkbox"/> 10 @ 31	
		4,8	H,0,1,1,3		
		4,9	U,0,1,3,6		
		5,0	7,0,0,0,0,0,0,5		
		5,1		<input checked="" type="checkbox"/>	
		5,2	J,T,J,T,J,T,J,T		
		5,3			
		5,4			
		5,5	B,0,1,1,3	<input checked="" type="checkbox"/>	
		5,6	U,0,0,6,1		
		5,7			
		5,8			
		5,9		<input checked="" type="checkbox"/>	
		6,0			
		6,1			
		6,2			
		6,3		<input checked="" type="checkbox"/>	

Conditional Stop Code

Carriage Return

Royal McBee Corporation

Problem DATA OUTPUT #5 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>	0.0	B.0.0.0.3			
		0.1	A.0.2.2.3		1@29	
		0.2	Y.0.0.3.8			
		0.3	B.L. J	<input checked="" type="checkbox"/>	"R" TO HERE	
		0.4	Y.0.0.1.3		Loc.	
		0.5	S.0.0.3.4		1@15	
		0.6	T.0.0.3.8			
		0.7	B.0.0.0.3	<input checked="" type="checkbox"/>	→ Y	
		0.8	U.0.2.4.1		U	
		0.9	M.0.1.6.0			
		1.0	B.0.1.5.3		PERM.P.S.C	
		1.1	H.0.2.5.4	<input checked="" type="checkbox"/>		
		1.2	X.H.6.3.4.1		TEMP.P.S.C	
		1.3	B.L. J		No To PRINT	
		1.4	X.H.6.3.4.3			
		1.5	T.0.2.1.6	<input checked="" type="checkbox"/>		
		1.6	B.0.2.4.5			
		1.7	C.0.0.3.2			
		1.8	U.0.0.2.1			
		1.9	X.Z.0.0.0.1	<input checked="" type="checkbox"/>	1@29	
		2.0	M.0.3.0.3			
		2.1	X.B.6.3.4.3		1 not	
		2.2	U.0.0.2.3			
		2.3	U.L. J	<input checked="" type="checkbox"/>		
		2.4	M.L. J		HERE "≠ 0" SHIFT	
		2.5	D.L. J		10°	
		2.6	A.0.2.1.2		1@30	
		2.7	X.H.6.3.4.2	<input checked="" type="checkbox"/>		
		2.8	S.0.2.1.4		1@0	
		2.9	T.0.0.5.8		→ LEADING ZERO	
		3.0	B.0.1.0.9		{SW → A	
		3.1	U.0.1.6.2	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Royal McBee Corporation

Problem DATA OUTPUT #5 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>	0.0	[ . . . ]			PRINT "-" OR 1/0327
		3.3	U.0.3.2.6			
		3.4	1.0.0.0.0			1@15
		3.5		<input checked="" type="checkbox"/>		
		3.6	T.J.J.J.J.J.J			1@0
		3.7	J.J.0.0			MASK
		3.8	B.L. J			
		3.9	F.0.2.1.1	<input checked="" type="checkbox"/>		XZ6363
		4.0	S.0.2.1.9			1@23
		4.1	H.0.2.1.3			
		4.2	T.0.3.0.4			→ N/C 1 ERROR
		4.3	F.0.2.0.8	<input checked="" type="checkbox"/>		XZ0031
		4.4	D.0.3.2.3			3.33.....@6
		4.5	H.0.1.0.3			*
		4.6	A.0.1.1.8			.75@23
		4.7	M.0.3.2.6	<input checked="" type="checkbox"/>		1@6
		4.8	H.0.1.5.3			PERM.P.S.C. @29
		4.9	A.0.2.2.1			1@29
		5.0	H.0.3.0.0			(P.S.C.+1)@29
		5.1	A.0.3.3.0	<input checked="" type="checkbox"/>		Lo(10° TABLE -1)
		5.2	Y.0.1.3.2			Loc (10°)
		5.3	Y.0.0.2.5			Loc (10°)
		5.4	A.0.0.1.9			1@29
		5.5	Y.0.2.3.9	<input checked="" type="checkbox"/>		Loc (10°+1)
		5.6	U.0.1.4.4			
		5.7	X.Z.0.0.0.1			
		5.8	X.B.6.3.4.1			
		5.9	S.0.3.2.4	<input checked="" type="checkbox"/>		1@29
		6.0	T.0.0.3.0			
		6.1	X.P.0.3.4.0			SPACE
		6.2	X.H.6.3.4.1			
		6.3	X.B.6.3.4.2	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Royal McBee Corporation



Problem DATA OUTPUT #5 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1 0.0	N.0.1.2.2		} 10 @ 31	
		0.1	X.H.6.3.4.2			
		0.2	U.0.1.1.4			
2.0.0.0.0.0.5		0.3	[ ]	<input checked="" type="checkbox"/>		
		0.4	W.T			
		0.5	8.0.0.0.0.0			
		0.6	1.8		1 @ 23	
		0.7	F	<input checked="" type="checkbox"/>		
		0.8	M.0.3.1.0			
		0.9	T.0.2.3.1		(0030)	
		1.0	T.0.0.3.2			
		1.1	A.0.1.5.4	<input checked="" type="checkbox"/>		
		1.2	U.0.2.0.8		←	
		1.3	X.Z.0.0.0.7		2 @ 29 ←	
		1.4	S.0.0.3.6		1 @ 20	
		1.5	T.0.0.5.7	<input checked="" type="checkbox"/>		
		1.6	B.0.3.3.1			
		1.7	U.0.1.6.2			
		1.8	X.Z.0.0.4.8			
		1.9	U.0.0.1.0	<input checked="" type="checkbox"/>		
		2.0	B.0.3.0.6			
		2.1	U.0.1.5.8			
2.0.0.0.0.0.1		2.2	F			
		2.3	B.0.0.0.9	<input checked="" type="checkbox"/>	SHIFT OF 2	
		2.4	U.0.1.5.6			
		2.5	A.0.2.2.1		1 @ 29	
		2.6	Y.0.0.1.3			
		2.7	U.0.1.1.8	<input checked="" type="checkbox"/>		
		2.8	X.S.6.3.4.3		1 no. 1	
		2.9	U.0.0.2.3			
		3.0	X.Z.0.0.6.3			
		3.1	X.H.6.3.4.6	<input checked="" type="checkbox"/>	HERE: "0" SHIFT	

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Problem DATA OUTPUT #5 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.3.2	S[ ]		10 @	
		3.3	A.0.2.1.2		1 @ 30	
		3.4	T.0.2.5.2		→ OK TO PRINT	
		3.5	B.0.3.0.0	<input checked="" type="checkbox"/>	P.S.C.+1	
		3.6	H.0.2.5.4			
		3.7	X.C.6.3.4.1			
		3.8	B.0.1.0.3			
		3.9	E.0.1.0.4	<input checked="" type="checkbox"/>	XZ 0063	
		4.0	S.0.0.1.9		1 @ 30	
		4.1	T.0.2.3.7			
		4.2	B.0.3.1.0		1 @ 3	
		4.3	U.0.2.3.8	<input checked="" type="checkbox"/>		
		4.4	B.0.1.3.0		XZ 0063	
		4.5	E.0.1.0.3		*	
		4.6	S.0.3.0.4		3 @ 23	
		4.7	T.0.1.2.0	<input checked="" type="checkbox"/>	→ 0 SHIFT	
		4.8	S.0.1.0.6		1 @ 23	
		4.9	T.0.2.4.3		→ SHIFT = 3	
		5.0	S.0.2.1.5		3 @ 23	
		5.1	T.0.1.2.3	<input checked="" type="checkbox"/>	→ SHIFT 2	
		5.2	U.0.1.5.5			
2.0.0.0.0.0.2		5.3	[ ]		PERM. P.S.C. @ 29	
		5.4	2			
		5.5	B.0.0.2.0	<input checked="" type="checkbox"/>		
		5.6	Y.0.0.2.4			
		5.7	B.0.3.2.9		U0024	
		5.8	Y.0.0.2.3			
		5.9	U.0.0.1.0	<input checked="" type="checkbox"/>		
2.0.0.0.0.0.2		6.0	2.0.0.0.0.0.0		FOR SHIFT OF 2	
		6.1	8.0.0.0.0.0.0			
		6.2	Y.0.2.0.9			
		6.3	X.B.6.3.4.2	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Problem DATA OUTPUT #5 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		0.2 0.0	M	0.2.2.2		10@21	
		0.1	E	0.0.3.7		XZ6000	
		0.2	A	0.2.2.4		XP0204	
		0.3	C	0.2.2.5	<input checked="" type="checkbox"/>		
		0.4	S	0.0.1.9		1@29	
		0.5	X.A	6.3.4.1			
		0.6	U	0.2.0.9			
		0.7	X.Z	0.0.3.1	<input checked="" type="checkbox"/>		
		0.8	X.Z	0.0.3.1			
		0.9	T.L			A:70231 B:70032	
		1.0	U	0.2.2.5			
7.0.0.0.0.0.5		1.1	3.W.W.W		<input checked="" type="checkbox"/>	MASK	
		1.2				1@30	
		1.3	[			(N-1)CTR.	
		1.4	J.J.J.J.J.J.J			1@0	
		1.5	4.J		<input checked="" type="checkbox"/>	3@23	
		1.6	B	0.3.0.2			
		1.7	C	0.0.3.2			
		1.8	U	0.1.2.8			
7.0.0.0.0.0.7		1.9		1.0.0	<input checked="" type="checkbox"/>	1@23	
		2.0	7.W.W.W.W.W.W.W.Q				
		2.1		4		1@29	
		2.2		2.8.0.0		10@21	
		2.3		4	<input checked="" type="checkbox"/>	1@29	
		2.4		8.0.2.1.0			
		2.5	[			PRINT A CHAR.	
		2.6	X.H	6.3.4.8			
		2.7	X.B	6.3.4.2	<input checked="" type="checkbox"/>		
		2.8	N	0.1.0.7		10@31	
		2.9	U	0.2.5.5			
		3.0	X.Z	0.0.0.2			
		3.1	X.P	2.3.1.0	<input checked="" type="checkbox"/>	DEC.PT.	

Conditional Stop Code  Carriage Return

Problem DATA OUTPUT #5 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		0.2 3.2	B	0.1.1.0		T0032	
		3.3	Y	0.2.0.9			
		3.4	B	0.1.1.3		8@294	
		3.5	S	0.2.5.4	<input checked="" type="checkbox"/>		
		3.6	U	0.1.1.1			
		3.7	B	0.1.0.5		1@4	
		3.8	X.M	6.3.4.6			
		3.9	D.L				
		4.0	U	0.0.2.6			
		4.1	Y	0.2.4.2			
		4.2	U				
		4.3	B	0.1.0.8	<input checked="" type="checkbox"/>		
		4.4	U	0.1.5.6			
		4.5	U	0.3.2.7			
		4.6	B	0.2.1.3		CTR.	
		4.7	S	0.2.1.9	<input checked="" type="checkbox"/>	1@23	
		4.8	H	0.2.1.3			
		4.9	T	0.3.0.7			
		5.0	B	0.0.1.3			
		5.1	U	0.1.2.5	<input checked="" type="checkbox"/>	CHANGE	
		5.2	X.B	6.3.4.6			
		5.3	U	0.0.2.5			
		5.4	[			#2 P.S.C. 029	
		5.5	E	0.2.2.0	<input checked="" type="checkbox"/>		
		5.6	X.H	6.3.4.2			
		5.7	M	0.2.2.2		10@21	
		5.8	E	0.0.3.7		XZ6000	
		5.9	A	0.2.2.4	<input checked="" type="checkbox"/>	XP0204	
		6.0	C	0.2.2.5			
		6.1	S	0.0.1.9		1@29	
		6.2	X.A	6.3.4.8			
		6.3	U	0.2.0.8	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

LGP-30 CODING SHEET

Page 2 of 2  
Date 1/2/58

Job No. \_\_\_\_\_ Prog. No. 12.4 Prep. by M.A. Ck'd. by \_\_\_\_\_

Problem DATA OUTPUT #5 Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
<u>7.0.0.0.0.0.5</u>		<u>03.0.0</u>	<u>[ . . . . ]</u>		<u>P.S.C.+1</u>	
		<u>0.1</u>				
		<u>0.2</u>	<u>8.0.7.2</u>	<u>J</u>		
		<u>0.3</u>	<u>4.0.0.0.0.0.0</u>		<input checked="" type="checkbox"/> FOR SHIFT OF 1	
		<u>0.4</u>	<u>4.J</u>		<u>.3 @ 23 + DELAY</u>	
		<u>0.5</u>	<u>U.0.0.0.7</u>			
		<u>0.6</u>	<u>U.0.1.3.1</u>			
		<u>0.7</u>	<u>B.0.0.3.8</u>		<input checked="" type="checkbox"/>	
		<u>0.8</u>	<u>A.0.2.2.3</u>			
		<u>0.9</u>	<u>Y.0.0.0.3</u>			
<u>7.0.0.0.0.0.1</u>		<u>1.0</u>	<u>1.0.0.0.0.0.0</u>		<u>FOR SHIFT OF 3</u>	
		<u>1.1</u>	<u>U.0.0.0.1</u>		<input checked="" type="checkbox"/>	
<u>7.0.0.0.0.1.5</u>		<u>1.2</u>	<u>7.W.W.W.W.W.W.W.Q</u>		<u>10<sup>0</sup> @ 0</u>	
		<u>1.3</u>	<u>5.0.0.0.0.0.0</u>		<u>10<sup>1</sup> @ 4</u>	
		<u>1.4</u>	<u>6.4.0.0.0.0.0</u>		<u>10<sup>2</sup> @ 7</u>	
		<u>1.5</u>	<u>7.K.0.0.0.0.0</u>		<input checked="" type="checkbox"/> <u>10<sup>3</sup> @ 10</u>	
		<u>1.6</u>	<u>4.Q.2.0.0.0.0</u>		<u>10<sup>4</sup> @ 14</u>	
		<u>1.7</u>	<u>6.1.F.8.0.0.0</u>		<u>10<sup>5</sup> @ 17</u>	
		<u>1.8</u>	<u>7.F.1.2.0.0.0</u>		<u>10<sup>6</sup> @ 20</u>	
		<u>1.9</u>	<u>4.T.4.G.4.0.0.0</u>		<input checked="" type="checkbox"/> <u>10<sup>7</sup> @ 24</u>	
		<u>2.0</u>	<u>5.W.5.Q.1.0.0.0</u>		<u>10<sup>8</sup> @ 27</u>	
		<u>2.1</u>	<u>7.7.3.5.9.4.0.0</u>		<u>10<sup>9</sup> @ 30</u>	
		<u>2.2</u>	<u>4.F.8.1.7.J.8.0</u>		<u>10<sup>10</sup> @ 34</u>	
		<u>2.3</u>	<u>6.F.F.F.F.F.F.F</u>		<input checked="" type="checkbox"/> <u>3-3333333 @ 6</u>	
		<u>2.4</u>	<u>4</u>		<u>←</u>	
		<u>2.5</u>			<u>←</u>	
		<u>2.6</u>	<u>2.0.0.0.0.0.0</u>		<u>1 @ 6 + DELAY</u>	
		<u>2.7</u>	<u>X.P.2.4.4.2</u>		<input checked="" type="checkbox"/> <u>TAB</u>	
		<u>2.8</u>	<u>U.0.2.4.6</u>			
		<u>2.9</u>	<u>U.0.0.2.4</u>			
		<u>3.0</u>	<u>Z.0.3.1.1</u>		<u>10 (10<sup>0</sup> TABLE) - 1</u>	
		<u>3.1</u>	<u>T.0.2.3.1</u>		<input checked="" type="checkbox"/>	

Conditional Stop Code  Carriage Return

Problem HEXADECIMAL PUNCH Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
3.0.0.0						
1.0.0.0		<input checked="" type="checkbox"/>				
		0.0	B.0.1.2.9		T0200	
		0.1	H.0.1.0.8			
		0.2	B.0.2.3.3		6@29	
		0.3	X.C.6.3.3.2	<input checked="" type="checkbox"/>		
		0.4	U.0.0.0.5			
		0.5	X.C.6.3.3.5			
		0.6	B.0.1.5.6			
		0.7	C.0.3.1.7	<input checked="" type="checkbox"/>		
		0.8	X.P.0.0.5.8			
		0.9	X.F.0.0.5.9			
		1.0	X.H.6.3.6.0			
		1.1	U.0.0.1.9	<input checked="" type="checkbox"/>		
		1.2	X.Z.3.2.6.2			
		1.3	U.0.0.0.0			
		1.4				
		1.5	H.0.1.0.1	<input checked="" type="checkbox"/>		
		1.6	X.H.6.3.3.1			
		1.7	U.0.1.0.1			
		1.8	X.Z.0.2.5.6		290	
		1.9	U.0.3.6.2	<input checked="" type="checkbox"/>	1@29	
		2.0	P.0.1.4.2			
		2.1	U.0.0.3.0			
		2.2	U.0.0.2.3			
		2.3	X.H.6.3.3.8	<input checked="" type="checkbox"/>	FINAL LOC.	
		2.4	X.B.6.3.6.0			
		2.5	M.0.3.6.1		1@14	
		2.6	U.0.0.2.7			
		2.7	R.0.1.4.2	<input checked="" type="checkbox"/>		
		2.8	U.0.0.3.0			
		2.9	U.0.4.0.1			
		3.0	E.0.3.0.9		3WWWJ	
		3.1	X.H.6.3.1.7	<input checked="" type="checkbox"/>		

Conditional Stop Code

Carriage Return

Problem HEXADECIMAL PUNCH Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		0.0	E.0.1.4.7		3J3J0	
		3.3	M.0.4.1.9		-6@4	
		3.4	X.A.6.3.1.7			
		3.5	X.H.6.3.1.4	<input checked="" type="checkbox"/>		
		3.6	U.0.1.3.9			
2.0.0.0	2.0.0.6	3.7	2.0.0.0.0.0		1@6	
		3.8	3J.0.0		3J00	
		3.9	2F.8	<input checked="" type="checkbox"/>		
		4.0	W.W.W.Q		1@15-1@30	
		4.1	4.0.0.0.0.0		1@1	
		4.2	[		(N-1)B[40]	
		4.3	T.0.2.0.8	<input checked="" type="checkbox"/>		
		4.4	S.0.1.5.9		1@1	
		4.5	T.0.3.1.9			
		4.6	S.0.1.6.1		1@1-1@30	
		4.7	T.0.3.1.9	<input checked="" type="checkbox"/>		
		4.8	A.0.1.6.3		1@30	
		4.9	X.A.6.3.3.5		Σ	
		5.0	S.0.3.2.2		1@1	
		5.1	T.0.0.5.5	<input checked="" type="checkbox"/>		
		5.2	S.0.1.3.8		1@1-1@30	
		5.3	T.0.0.5.5			
		5.4	U.0.0.5.6			
		5.5	A.0.0.4.1	<input checked="" type="checkbox"/>	1@1	
		5.6	X.C.6.3.3.5		Σ	
		5.7	X.B.6.3.4.3			
		5.8	S.0.1.3.7		1@11-1@29	
		5.9	T.0.2.2.0	<input checked="" type="checkbox"/>		
		6.0	U.0.1.2.0			
		6.1	X.Z.0.4.0.0		1@21	
		6.2	X.Z.6.0.0.0		3J00	
		6.3	X.Z.0.2.1.6	<input checked="" type="checkbox"/>	240	

Conditional Stop Code

Carriage Return

Problem HEXADECIMAL PUNCH Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.0.0	B[ ]			
		0.1	[ ]			
		0.2	U[ ]		U0103 U0131	
		0.3	X.H.6.3.5.3	<input checked="" type="checkbox"/>		
		0.4	X.Z.3.2.5.4			
		0.5	X.H.6.3.4.8			
		0.6	X.P.3.2.5.6			
		0.7	X.H.6.3.2.2	<input checked="" type="checkbox"/>		
		0.8	[ T.0.2.0.0 ]		→ NEG. WORD	
		0.9	S.0.3.5.9		1@30	
		1.0	T.0.2.4.6		→ 0 WORD	
		1.1	S.0.0.4.0	<input checked="" type="checkbox"/>	1@15-1@30	
		1.2	T.0.1.4.8			
		1.3	S.0.2.3.5		1@11-1@15	
		1.4	T.0.2.5.0		→ 30'S	
		1.5	S.0.1.5.8	<input checked="" type="checkbox"/>	1@7-1@11	
		1.6	T.0.2.1.2			
		1.7	S.0.3.6.0		1@3-1@7	
		1.8	T.0.2.3.8			
		1.9	U.0.2.0.0	<input checked="" type="checkbox"/>		
		2.0	H.0.0.4.2			
		2.1	X.H.6.3.4.3			
		2.2	U.0.0.4.2			
		2.3	A.0.2.5.9	<input checked="" type="checkbox"/>	-1@23+1@19	
		2.4	T.0.3.3.6			
		2.5	U.0.2.6.2			
		2.6	X.Z.0.0.1.2			
		2.7	X.P.3.2.1.3	<input checked="" type="checkbox"/>		
		2.8	U.0.0.1.2			
		2.9	T.0.2.0.0			
		3.0	U.0.1.2.6			
		3.1	X.H.6.3.5.3	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Problem HEXADECIMAL PUNCH Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.3.2	X.Z.3.2.1.8			
		3.3	X.H.6.3.4.8			
		3.4	X.P.1.6.2.0			
		3.5	U.0.1.0.7	<input checked="" type="checkbox"/>		
7.0.0.0.0.0.3		3.6	3.J.0.0		3J00	
		3.7	W.W.W.W.W.J		1@11-1@29	
		3.8	3.W.W.W.W.W.W.Q		1@1-1@30	
		3.9	F.0.4.2.5	<input checked="" type="checkbox"/>		
		4.0	M.0.1.6.2		-34@0	
		4.1	X.A.6.3.1.4			
		4.2	U[ ]			
7.0.0.0.0.0.5		4.3		<input checked="" type="checkbox"/>		
		4.4	W.W.W.W.W.0.0.0.0			
		4.5	W.W.W.W.W.J		1@11-1@29	
		4.6	W.W.W.W.W.J.0.0.0		-1@17	
		4.7	3.J.3.J.0	<input checked="" type="checkbox"/>		
		4.8	A.0.2.3.4		-1@22+1@15	
		4.9	T.0.3.1.0			
		5.0	S.0.2.3.6		1@19-1@27	
		5.1	T.0.1.2.3	<input checked="" type="checkbox"/>		
		5.2	U.0.2.2.4			
		5.3	X.H.6.3.3.2			
		5.4	B.0.4.1.2			
		5.5	U.0.3.4.4	<input checked="" type="checkbox"/>		
		5.6	U.0.2.4.6			
7.0.0.0.0.0.7		5.7				
		5.8	W.W.0.0.0.0.0		1@17-1@11	
		5.9	7.0.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1@1	
		6.0				
		6.1	3.W.W.W.W.W.W.W.Q		1@1-1@30	
		6.2	F.0.0.0.0.0.0.0		-34@0	
		6.3		<input checked="" type="checkbox"/>	2. 1@30	

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Problem HEXADECIMAL PUNCH Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		02 0 0	X.B.6.3.2.2		N 0	
		0 1	M.0.2.2.3		1@18	
		0 2	E.0.0.3.8		3J00	
		0 3	A.0.0.1.8	<input checked="" type="checkbox"/>	2Q0	
		0 4	Y.0.2.0.6			
		0 5	X.Z.3.2.5.5			
		0 6	P.L. ]			
		0 7	U.0.2.3.8	<input checked="" type="checkbox"/>		
		0 8	A.0.3.5.8		1@1	
		0 9	U.0.0.4.5			
1.0.0.0.0.0.2		1 0	3.J.0.0			
		1 1	2.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1@2	
		1 2	X.B.6.3.4.8		N 0	
		1 3	M.0.3.6.3		1@10	
		1 4	E.0.1.3.6		3J00	
		1 5	A.0.2.5.8	<input checked="" type="checkbox"/>	210 (HEX)	
		1 6	Y.0.2.1.8			
		1 7	X.Z.3.2.0.3			
		1 8	P.L. ]			
		1 9	U.0.2.5.0	<input checked="" type="checkbox"/>		
		2 0	X.B.6.3.3.5			
		2 1	X.H.6.3.5.3			
		2 2	U.0.1.3.3			
		2 3	X.Z.3.2.0.0	<input checked="" type="checkbox"/>	1@18	
		2 4	X.B.6.3.5.3		N 0	
		2 5	M.0.2.1.1		1@2	
		2 6	E.0.0.6.2		3J00	
		2 7	A.0.0.6.3	<input checked="" type="checkbox"/>	240	
		2 8	Y.0.2.3.0			
		2 9	X.Z.3.2.1.5			
		3 0	P.L. ]			
		3 1	U.0.2.6.2	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem HEXADECIMAL PUNCH Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
2.0.0.0.0.0.6		02 3 2	W.W.W.W.J		1@11-1@29	
		3 3	.1.8		6@29	
		3 4	W.W.W.O		-1@27+1@15	
		3 5	W.O.0.0.0	<input checked="" type="checkbox"/>	1@11-1@15	
		3 6	W.W.O		1@19-1@27	
		3 7	2.K.8		0254	
		3 8	X.B.6.3.5.3		N 0	
		3 9	M.0.3.6.1	<input checked="" type="checkbox"/>	1@14	
		4 0	E.0.0.6.2		3J00	
		4 1	A.0.3.0.6			
		4 2	X.0.2.4.4			
		4 3	X.Z.3.2.2.9	<input checked="" type="checkbox"/>		
		4 4	P.L. ]			
		4 5	U.0.2.1.2			
		4 6	X.B.6.3.3.2		WORD COUNTER	
		4 7	S.0.3.6.2	<input checked="" type="checkbox"/>	1@29	
		4 8	T.0.3.2.4			
		4 9	U.0.1.5.3			
		5 0	X.B.6.3.2.2		N 0	
		5 1	M.0.0.3.7	<input checked="" type="checkbox"/>	1@6	
		5 2	E.0.2.1.0			
		5 3	A.0.0.3.9		2F8	
		5 4	Y.0.2.5.6			
		5 5	X.Z.3.2.4.1	<input checked="" type="checkbox"/>		
		5 6	P.L. ]			
		5 7	U.0.2.2.4			
		5 8	X.Z.0.2.0.4			
		5 9	X.Z.1.5.0.0	<input checked="" type="checkbox"/>	-1@23+1@19	
		6 0	X.Z.0.0.0.1		1@29	
		6 1	X.Z.0.2.2.8			
		6 2	X.B.6.3.4.8		N 0	
		6 3	N.0.3.2.1	<input checked="" type="checkbox"/>	1@29	

Conditional Stop Code  Carriage Return



Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		03 0 0	F	013.6		3J00	
		0 1	A	023.7		2K8	
		0 2	Y	030.4			
		0 3	XZ	325.3	<input checked="" type="checkbox"/>		
		0 4	P	[ ]			
		0 5	U	033.6			
		0 6	XZ	023.0		278	
		0 7	XZ	000.5	<input checked="" type="checkbox"/>	5@29	
7.0000002		0 8					
		0 9	3	WWUJ			
		1 0	XB	635.3		N ⑧	
		1 1	N	006.1	<input checked="" type="checkbox"/>	1@21	
		1 2	F	006.2		3J00	
		1 3	A	033.5		208	
		1 4	Y	031.6			
		1 5	XZ	320.1	<input checked="" type="checkbox"/>		
		1 6	P	[ ]			
		1 7	L	U024.6			
		1 8					
		1 9	A	004.1	<input checked="" type="checkbox"/>	1@1	
		2 0	U	004.9			
7.0000003		2 1				4 1@29	
		2 2	4	000000.0		1@1	
		2 3			<input checked="" type="checkbox"/>	4 1@25	
		2 4	B	030.7		5@29	
		2 5	XH	633.2			
		2 6	B	035.6		U0131	
		2 7	XZ	321.3	<input checked="" type="checkbox"/>		
		2 8	XP	321.4			
		2 9	U	034.4			
		3 0	S	010.2			
		3 1	T	004.2	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		03 3 2	XZ	321.8			
		3 3	XP	321.9			
		3 4	U	004.2			
		3 5	XZ	020.2	<input checked="" type="checkbox"/>	208	
		3 6	XB	632.2		N ⑧	
		3 7	N	032.3		1@25	
		3 8	F	021.0			
		3 9	A	026.1	<input checked="" type="checkbox"/>	270	
		4 0	Y	034.2			
		4 1	XZ	322.7			
		4 2	P	[ ]			
		4 3	U	031.0	<input checked="" type="checkbox"/>		
		4 4	Y	010.2			
		4 5	XB	633.1			
		4 6	S	023.2		1@11-1@29	
		4 7	T	034.9	<input checked="" type="checkbox"/>	7 FINISHED	
		4 8	U	001.5			
		4 9	B	040.0		U0200	
		5 0	H	010.8			
		5 1	B	013.0	<input checked="" type="checkbox"/>	U0126	
		5 2	C	031.7			
		5 3	XC	633.2			
		5 4	B	041.2			
		5 5	U	033.0	<input checked="" type="checkbox"/>		
		5 6	U	013.1			
7.0000007		5 7					
		5 8	4	000000.0		1@1	
		5 9			<input checked="" type="checkbox"/>	2 1@30	
		6 0	U	000000.0		1@3-1@7	
		6 1	2	000.0		1@14	
		6 2				4 1@29	
		6 3	2	0000.0	<input checked="" type="checkbox"/>	1@10	

Conditional Stop Code  Carriage Return

Problem HEXADECIMAL PUNCH Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>					
		0.4	U	0.2	0.0		
		0.1	Y	0.1	0.0		
		0.2	X	5.6	3.3.8		
		0.3	N	0.1	4.6	<input checked="" type="checkbox"/>	-1 @ 17
		0.4	A	0.1	0.0		
		0.5	X	H	6.3.4.8		
		0.6	X	H	6.3.5.3		
		0.7	X	H	6.3.2.2	<input checked="" type="checkbox"/>	
		0.8	E	0.1	4.4		www/0000
		0.9	N	0.4	2.4		1 @ 27
		1.0	S	0.2	6.0		1 @ 29
		1.1	U	0.4	1.4	<input checked="" type="checkbox"/>	
		1.2	U	0.1	0.3		
		1.3					
		1.4	A	0.1	0.0		
		1.5	H	0.1	0.1	<input checked="" type="checkbox"/>	
		1.6	X	H	6.3.3.1		
		1.7	S	0.2	3.2		1 @ 11 - 1 @ 29
		1.8	U	0.4	2.0		
<u>7.0.0.0.0.0.0.1</u>		1.9	K	0.0.0.0.0.0.0	<input checked="" type="checkbox"/>		-6 @ 4
		2.0	H	0.0	4.2		
		2.1	X	C	6.3.4.3		
		2.2	X	P	3.1.0.8		
		2.3	U	0.2	3.8	<input checked="" type="checkbox"/>	
		2.4	X	Z	0.0.0.4		1 @ 27
<u>7.0.0.0.0.0.1</u>		2.5	W	W	W	W	0.0
		2.6					
		2.7				<input checked="" type="checkbox"/>	
		2.8					
		2.9					
		3.0					
		3.1				<input checked="" type="checkbox"/>	

Conditional Stop Code



Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
3.0.0.0						
1.0.0.0	<input checked="" type="checkbox"/>					
		0 0	T.0.0.3			ENTRY FOR SIN
		0 1	S.0.0.2.3		90@9	
		0 2	U.0.0.0.4			
		0 3	A.0.0.2.5	<input checked="" type="checkbox"/>	270@9	
		0 4	T.0.0.5.0			ENTRY FOR COS.
		0 5	S.0.0.5.5		360@9	
		0 6	T.0.0.5.7			
		0 7	U.0.0.0.9	<input checked="" type="checkbox"/>		
7.0.0.0.0.0.1		0 8	S.F.0.0.0.0.0		360@9(0050)(0057)	
		0 9	X.H.6.3.4.5		X@9	
		1 0	S.0.0.5.3		180@9+1 BIT	
		1 1	T.0.0.1.4	<input checked="" type="checkbox"/>		
		1 2	S.0.0.6.2		90@9-1 bit 3 <sup>rd</sup> or 4 <sup>th</sup> QUADS. COS.	
		1 3	U.0.0.1.7			
		1 4	B.0.0.2.9		90@9	1 <sup>st</sup> or 2 <sup>nd</sup> QUADS--COS.
		1 5	U.0.0.1.6	<input checked="" type="checkbox"/>		
		1 6	X.5.6.3.4.5		X@9	
		1 7	D.0.0.6.0		90@8	
		1 8	X.H.6.3.0.4		X@1	
		1 9	U.0.0.2.0	<input checked="" type="checkbox"/>		
		2 0	X.H.6.3.0.6		X@1	
		2 1	U.0.0.3.2			
7.0.0.0.0.1.0		2 2	F.K.5.1.0.W.F.6		C3@0(0043)-.64596371106	
		2 3	1.6.8.0.0.0.0	<input checked="" type="checkbox"/>	90@9(0000)	
		2 4	4.W.6.G.K.F		C9@-4(0038)-.00015148419	
		2 5	4.3.8.0.0.0.0		270@9(0003)	
		2 6	4.0.0.0.0.0.0		1@1(0047)	
		2 7	1.4.6.6.8.F.W.6	<input checked="" type="checkbox"/>	C5@-1(0041)-.07968967928	
		2 8				
		2 9	1.6.8.0.0.0.0		90@9(0014)	
		3 0				
		3 1	2.4.8.7.0.K.Y.8	<input checked="" type="checkbox"/>	C1@1(0031)-.57079631847	

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		3 2	X.M.6.3.0.4		X@1	
		3 3	X.H.6.3.0.5		X2@2	
		3 4	D.0.0.6.3		1@1	
		3 5	X.H.6.3.0.7	<input checked="" type="checkbox"/>	X2@1	
		3 6	U.0.0.3.7			
		3 7	X.H.6.3.0.2		X2@1	
		3 8	M.0.0.2.4		C9@-4	
		3 9	A.0.0.6.1	<input checked="" type="checkbox"/>	C7@-3	
		4 0	X.M.6.3.0.5		X2@2	
		4 1	A.0.0.2.7		C5@-1	
		4 2	X.M.6.3.0.7		X2@1	
		4 3	A.0.0.2.2	<input checked="" type="checkbox"/>	C3@0	
		4 4	X.M.6.3.0.2		X2@1	
		4 5	A.0.0.3.1		C1@1	
		4 6	X.M.6.3.0.4		X@1	
		4 7	D.0.0.2.6	<input checked="" type="checkbox"/>	1@1	
		4 8	X.A.6.3.0.6		X@1	
		4 9	U.5. ]		EXIT	
		5 0	A.0.0.0.8		360@9	
		5 1	T.0.0.5.0	<input checked="" type="checkbox"/>		
		5 2	U.0.0.0.9			
7.0.0.0.0.0.0.4		5 3	2.K.0.0.0.0.2		180@9+1 BIT (0010)	
		5 4				
		5 5	S.F.0.0.0.0.0	<input checked="" type="checkbox"/>	360@9(0005)	
		5 6				
		5 7	A.0.0.0.8		360@9	
		5 8	U.0.0.0.9			
3.0.0.0.0.0.5		5 9		<input checked="" type="checkbox"/>		
		6 0	2.K.0.0.0.0.0		90@8(0017)	
		6 1	W.G.3.6.T.J.R.6		C7@-3(0039)-.00467376557	
		6 2	1.6.7.W.U.W.U.Q		90@9-1 BIT (0012)	
		6 3	4.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1@1(0034)	

Conditional Stop Code  Carriage Return

Problem FLOATING POINT SINE COSINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
2.000 (L0+100)						
1.000 (L0)	<input checked="" type="checkbox"/>					
		1.6.0.0	M.1.6.43		$\pi @ 0$	POSINE ENTRY
		0.1	T.1.6.37			
		0.2	V.1.6.0.4			
2.000.0.0.0.1		0.3	2.4.8.7.0.K.4.8	<input checked="" type="checkbox"/>	$q @ 1$	.57079 638.47
		0.4	X.C.6.3.3.3			
		0.5	B.0.3.0.5		$q @ 30$	
		0.6	V.1.6.0.7			
		0.7	X.1.6.5.7	<input checked="" type="checkbox"/>	$1 @ 30$	
		0.8	T.1.6.2.2			
		0.9	V.1.6.1.0			
		1.0	X.C.6.3.3.3			
		1.1	V.1.6.5.2	<input checked="" type="checkbox"/>		
		1.2	X.C.6.3.5.5			SINE ENTRY
		1.3	B.1.6.5.6		(U1646)	
		1.4	V.1.6.5.8			
		1.5		<input checked="" type="checkbox"/>		
		1.6	D.1.7.0.2		$\pi/2 @ 2$	
		1.7	V.1.8.0.6			
		1.8	C.0.3.0.5			
		1.9	V.1.7.5.6	<input checked="" type="checkbox"/>		
		2.0				
		2.1	T.1.7.1.4			
		2.2	X.C.6.3.4.4			
		2.3	B.1.6.4.5	<input checked="" type="checkbox"/>	$2 @ 361$	INITIAL TABLE LOC.
		2.4	X.S.6.3.4.4		$(q-1) @ 29$	-1
		2.5	V.1.7.0.5			
		2.6	V.1.7.0.4			
		2.7	B.1.6.3.3	<input checked="" type="checkbox"/>	$\pi/2 @ 3$	
		2.8	X.S.6.3.4.4		$3\pi KF - \pi/2 @ 30$	$3\pi KF + \pi/2 @ 3$
		2.9	V.1.6.1.6			
		3.0				
		3.1	Z.0.4.2.8	<input checked="" type="checkbox"/>		FINAL LOC. OF TABLE

Conditional Stop Code



Carriage Return

Problem FLOATING POINT SINE COSINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		1.6.3.2				
2.0.0.0.0.0.4		3.3	1.9.2.1.W.6.5.4		$\pi/2 @ 3$	
		3.4	[ ]			
		3.5	7.W.W.W.W.W.W.Q	<input checked="" type="checkbox"/>		
		3.6	6.4.8.7.Q.K.5.1		$2\pi @ 3$	
		3.7	X.C.6.3.5.9			
		3.8	X.S.6.3.5.9			
		3.9	V.1.6.0.4	<input checked="" type="checkbox"/>		
2.0.0.0.0.0.1		4.0	4.C.6.5.W.2.1.5		$3\pi/2 @ 3$	
		4.1	X.B.6.3.2.0		$2\pi KF - \pi/2 @ 3$	$2\pi KF + 3\pi/2 @ 3$
		4.2	V.1.7.0.9			
2.0.0.0.0.0.1		4.3	1.4.5.W.3.0.6.8	<input checked="" type="checkbox"/>	$1 @ 0$	.15715494074
		4.4	[ ]			
		4.5	Z.0.3.6.1			INITIAL TABLE LOC
		4.6	X.H.6.3.6.1			-9
		4.7	X.B.6.3.5.5	<input checked="" type="checkbox"/>		
		4.8	T.1.7.1.1			
		4.9	X.B.6.3.6.1			
		5.0	S.1.6.3.3		$\pi/2 @ 3$	
		5.1	V.1.7.5.8	<input checked="" type="checkbox"/>		
		5.2	B.1.6.3.1		(Z0428)	
		5.3	X.S.6.3.3.2		$(q-1) @ 29$	
		5.4	X.1.6.6.2			
		5.5	V.1.6.6.1	<input checked="" type="checkbox"/>		
		5.6	V.1.6.4.6			
2.0.0.0.0.0.1		5.7			$2 @ 30$	
		5.8	C.1.7.0.9			
		5.9	X.B.6.3.5.5	<input checked="" type="checkbox"/>	$\pi$	
		6.0	V.1.6.0.0			
		6.1	X.B.6.3.3.3		$\pi/2\pi$	
		6.2	N.[ ]			SHIFT TO $q=0$
		6.3	E.1.6.3.5	<input checked="" type="checkbox"/>		EXTRACT INTEGER

Conditional Stop Code



Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		17.0.0	M1636		2π @ 3	
		0.1	U1709			
2.0.0.0.0.0.1		0.2	3.2.4.3 W6F8		π @ 3	or π/2 @ 2
		0.3		<input checked="" type="checkbox"/>		
		0.4	XB6333		1/2 π	Shift to 9 = 0
		0.5	M16		7	Extract integer
		0.6	E1635			
		0.7	M1636	<input checked="" type="checkbox"/>	2π @ 3	
		0.8	U1709			
		0.9	T1714			T1714 or U1646
		1.0	U1715			
		1.1	XB6361	<input checked="" type="checkbox"/>		
		1.2	S1640		3π/2 @ 3	
		1.3	U1758			
		1.4	A1636		2π @ 3	
		1.5	XH6344	<input checked="" type="checkbox"/>		
		1.6	S1702		π @ 3	
		1.7	T1627			
		1.8	S1633		π/2 @ 3	
		1.9	U1616	<input checked="" type="checkbox"/>		
		2.0	XH6306		4F	
		2.1	U1732			
2.0.0.0.0.0.8		2.2	FK51.0W.F.6		03 @ 0	-.6459, 6371, 166
		2.3		<input checked="" type="checkbox"/>		
		2.4	4W66KF		09 @ -4	.001, 5148, 49
		2.5				
		2.6	40.0.0.0.0.0			
		2.7	1.4.6.6.8.F.W.6	<input checked="" type="checkbox"/>	05 @ -1	.0796, 8967, 928
		2.8	40.0.0.0.0		1 @ 9	
		2.9	Z.0.0.0.0			
		3.0	C1709			
		3.1	U1641	<input checked="" type="checkbox"/>		

Conditional Stop Code       Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		17.3.2	X.M.6.3.0.4		X 2	
		3.3	X.H.6.3.0.5		X 2 @ 2	
		3.4	D.1.7.6.3		1 @ 1	
		3.5	X.H.6.3.0.7	<input checked="" type="checkbox"/>	X 2 @ 1	
		3.6	U.1.7.3.7			
		3.7	X.H.6.3.0.2		X 2 @ 1	
		3.8	M.1.7.2.4		C 9 @ -4	
		3.9	A.1.7.6.1	<input checked="" type="checkbox"/>	C 7 @ -3	
		4.0	X.M.6.3.0.5		X 2 @ 2	
		4.1	A.1.7.2.7		C 5 @ -1	
		4.2	X.M.6.3.0.7		X 2 @ 1	
		4.3	A.1.7.2.2	<input checked="" type="checkbox"/>	C 3 @ 0	
		4.4	X.M.6.3.0.2		X 2 @ 1	
		4.5	A.1.6.0.3		C 1 @ 1	
		4.6	X.M.6.3.0.4		X @ 1	
		4.7	D.1.7.2.6	<input checked="" type="checkbox"/>	1 @ 1	
		4.8	X.A.6.3.0.6		X @ 1	
		4.9	X.C.6.3.2.8			
		5.0	B.1.7.2.9		ZERO	
		5.1	U.1.6.1.8	<input checked="" type="checkbox"/>		
		5.2				
		5.3	X.H.6.3.0.4		X F	
		5.4	U.1.7.2.0			
		5.5		<input checked="" type="checkbox"/>		
		5.6	X.B.6.3.2.8			
		5.7	U.0.2.3.3			EXIT
		5.8	X.C.6.3.2.0			
		5.9	B.1.6.2.1	<input checked="" type="checkbox"/>		
		6.0	U.1.7.3.0			
2.2.0.0.0.0.3		6.1	W.6.3.6.J.T.0.6		C 7 @ -3	-.0046, 7376, 552
		6.2	3.2.4.3.W.6.6.4		π/2 @ 2	
		6.3	4.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 1	

Conditional Stop Code       Carriage Return

Problem FLOATING POINT SINE COSINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		1800	XB6342		XF @ 1	
		01	U1753			
<u>2.00000003</u>		02	400000		1 @ 9	
		03		<input checked="" type="checkbox"/>		
		04	400000		1 @ 9	
		05				
		06	XH6342			
		07	M1829	<input checked="" type="checkbox"/>	2T @ 3	
		08	T1823			
		09	S1831		1 @ 9	.0078125
		10	T1825			SIN = X
		11	U1820	<input checked="" type="checkbox"/>		
		12	T1800			
		13	S1728		1 @ 9	.0078125
		14	N1822		1 @ 30	
		15	XH6328	<input checked="" type="checkbox"/>		
		16	U1750			
		17				
		18				
		19		<input checked="" type="checkbox"/>		
		20	XB6342		XF @ 1	
		21	U1753			
<u>2.00000001</u>		22	2		1 @ 30	
		23	A1802	<input checked="" type="checkbox"/>	1 @ 9	.0078125
		24	U1812			
		25	A1804		1 @ 9	.0078125
		26	N1822		1 @ 30	
		27	XH6328	<input checked="" type="checkbox"/>		
		28	U1750			
<u>2.00000003</u>		29	6487QK51		2T @ 30	
		30				
		31	400000	<input checked="" type="checkbox"/>	1 @ 9	

Conditional Stop Code       Carriage Return



Problem WHITE SANDS PROVING GROUNDS-SQUARE ROOT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
0.0.0							
1.0.0	<input checked="" type="checkbox"/>						
		00.0.0	H.00.15			a	
		0.1	T.00.24			→ a < 0	
		0.2	S.00.24			1 @ 30	
		0.3	T.00.25		<input checked="" type="checkbox"/>	→ a = 0	
		0.4	S.00.40			1 @ 14 - 1 @ 30	
		0.5	T.00.31			→ a < 1 @ 14	
		0.6	S.00.21			1 @ 7 - 1 @ 14	
		0.7	T.00.36		<input checked="" type="checkbox"/>	→ a < 1 @ 7	
		0.8	B.00.23			ESTIMATE #1 1 @ 7 ≤ a < 1 @ 0	
		0.9	U.00.37				
2.0.0.0.0.0.0.9		1.0	I.W.Q.00			1 @ 14 - 1 @ 22 0031	
		1.1	[ ]		<input checked="" type="checkbox"/>	DUMP	
		1.2	W.W.W.W.Q			1 @ 7 - 1 @ 30 0033	
		1.3	[ ]				
		1.4	[ ]			X <sub>L</sub>	
		1.5	[ ]		<input checked="" type="checkbox"/>	a	
		1.6	[ ]			X <sub>L</sub>	
		1.7	[ ]			X <sub>L</sub>	
		1.8	J.0.0.0.0.0.0			- 1/2 @ 0 0046	
		1.9	B.00.41		<input checked="" type="checkbox"/>	ESTIMATE #4 1 @ 30 ≤ a < 1 @ 22	
		2.0	U.00.37				
3.0.0.0.0.0.0.4		2.1	W.Q.00.00			1 @ 7 - 1 @ 14 0006	
		2.2	G.5.0.4.W.2.8			0036	
		2.3	T.W.W.W.W.W.Q		<input checked="" type="checkbox"/>	1 @ 0 - 1 @ 30 0068	
		2.4	2			1 @ 30 0002 ERROR STOP	
		2.5	C.00.1.1			a = 0 0003	
		2.6	U.00.50				
		2.7	X.Z.0.0.0.0		<input checked="" type="checkbox"/>		
		2.8	A.00.1.4			X <sub>i</sub> FORM X <sub>L</sub> + 1 0047	
		2.9	U.00.37				
		3.0	X.Z.0.0.0.0				
		3.1	A.00.1.0		<input checked="" type="checkbox"/>	1 @ 14 - 1 @ 22 0005	

Conditional Stop Code  Carriage Return

Royal McBee Corporation

Problem WHITE SANDS PROVING GROUNDS-SQUARE ROOT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		0.0.3.2	T.00.19				
		3.3	B.00.12			ESTIMATE #3 1 @ 22 ≤ a < 1 @ 14	
		3.4	U.00.37				
		3.5	X.Z.00.00		<input checked="" type="checkbox"/>		0007
		3.6	B.00.22			ESTIMATE #2	
		3.7	H.00.16			STORE X <sub>L</sub>	0009 0029 0034
		3.8	H.00.17				
		3.9	U.00.42		<input checked="" type="checkbox"/>		
3.0.0.0.0.0.0.2		4.0	I.W.W.W.Q			1 @ 14 - 1 @ 30 0004	
		4.1	W.W.W.W.Q			1 @ 11 - 1 @ 30 0019	
		4.2	C.00.1.4			STORE X <sub>L</sub>	0039
		4.3	S.00.15		<input checked="" type="checkbox"/>	- a	
		4.4	D.00.16			X <sub>L</sub>	
		4.5	A.00.1.7			X <sub>L</sub>	
		4.6	M.00.18			- 1/2 @ 0	
		4.7	T.00.28		<input checked="" type="checkbox"/>		
		4.8	U.00.49				
		4.9	B.00.14				
		5.0	U. [ ]				0026
		5.1	[ ]		<input checked="" type="checkbox"/>		
		5.2	[ ]				
		5.3	[ ]				
		5.4	[ ]				
		5.5	[ ]		<input checked="" type="checkbox"/>		
		5.6	[ ]				
		5.7	[ ]				
		5.8	[ ]				
		5.9	[ ]		<input checked="" type="checkbox"/>		
		6.0	[ ]				
		6.1	[ ]				
		6.2	[ ]				
		6.3	[ ]		<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Royal McBee Corporation

Job No. \_\_\_\_\_ Prog. No. 16.0 Prep. by M. KAYE Ck'd. by \_\_\_\_\_ Date 10-15-56

Problem ARCTANGENT SUBROUTINE (DEG.) Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
3.0.0.0						
1.0.0.0		<input checked="" type="checkbox"/>				
		0.0	X.H.6.3.5.0		4@9	ENTRY
		0.1	T.0.0.1.1			
		0.2	S.0.0.5.2		1@30	
		0.3	T.0.0.6.2	<input checked="" type="checkbox"/>		
		0.4	B.0.0.5.1		EXIT	
		0.5	C.0.0.4.8			
		0.6	B.0.0.5.6		1@9	
		0.7	X.A.6.3.5.0	<input checked="" type="checkbox"/>		
		0.8	U.0.0.1.5			
7.0.0.0.0.0.2		0.9	3.W.U.W.W.K.3.4		C1@1(0044)-9999993329	
		1.0	W.W.G.K.9.4.0.J		C15@1(0031)-0040540580	
		1.1	B.0.0.5.4	<input checked="" type="checkbox"/>	EXIT	
		1.2	C.0.0.4.8			
		1.3	B.0.0.5.6		1@9	
		1.4	X.S.6.3.5.0		1@1	
		1.5	X.H.6.3.5.1	<input checked="" type="checkbox"/>	1@11@9	
		1.6	S.0.0.5.9		2@9	
		1.7	U.0.0.2.2			
7.0.0.0.0.0.4		1.8	1.J.F.5.K.J.1.8		57.2957795@8	
		1.9	G.4.0.0.0.0.0	<input checked="" type="checkbox"/>	45@9 (0047)	
		2.0	W.J.6.G.W.8.W.0		C11@1(0034)	
		2.1	Q.F.F.G.3.T.8.4		C3@1(0042)	
		2.2	X.D.6.3.5.1		1@11@9	
		2.3	X.H.6.3.1.0	<input checked="" type="checkbox"/>	X@0	
		2.4	X.M.6.3.1.0		X@0	X <sup>2</sup> @0
		2.5	X.H.6.3.0.4		X <sup>2</sup> @0	
		2.6	X.H.6.3.0.5		"	
		2.7	X.H.6.3.0.6	<input checked="" type="checkbox"/>	"	
		2.8	X.H.6.3.0.7		"	
		2.9	X.H.6.3.0.8		"	
		3.0	X.H.6.3.0.9		"	
		3.1	M.0.0.1.0	<input checked="" type="checkbox"/>	C15@1	

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 16.0 Prep. by M. KAYE Ck'd. by \_\_\_\_\_ Date 10-15-56

Problem ARCTANGENT SUBROUTINE (DEG.) Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		3.2	A.0.0.6.1		C13@1	
		3.3	X.M.6.3.0.5		X <sup>2</sup> @0	
		3.4	A.0.0.2.0		C11@1	
		3.5	X.M.6.3.0.7	<input checked="" type="checkbox"/>	X <sup>2</sup> @0	
		3.6	A.0.0.5.8		C9@1	
		3.7	X.M.6.3.0.9		X <sup>2</sup> @0	
		3.8	A.0.0.5.3		C7@1	
		3.9	X.M.6.3.0.4	<input checked="" type="checkbox"/>	X <sup>2</sup> @0	
		4.0	A.0.0.5.5		C5@1	
		4.1	X.M.6.3.0.6		X <sup>2</sup> @0	
		4.2	A.0.0.2.1		C3@1	
		4.3	X.M.6.3.0.8	<input checked="" type="checkbox"/>	X <sup>2</sup> @0	
		4.4	A.0.0.0.9		C1@1	
		4.5	X.M.6.3.1.0		X@0	
		4.6	M.0.0.1.8		57.2957795@8	
		4.7	A.0.0.1.9	<input checked="" type="checkbox"/>	45@9	
		4.8	[		]	
		4.9	X.C.6.3.0.7			
		5.0	X.S.6.3.0.7			
		5.1	U.L.		J	<input checked="" type="checkbox"/> EXIT
7.0.0.0.0.0.2		5.2			2	1@30(0002)
		5.3	W.7.1.9.3.9.K.2		C7@1(0038)	-1390853351
		5.4	U.0.0.4.9			
7.0.0.0.0.0.7		5.5	J.J.4.0.F.5.F	<input checked="" type="checkbox"/>	C5@1(0040)-1994653599	
		5.6	4.0.0.0.0.0		1@9(0006)(0013)	
		5.7				
		5.8	6.2.G.E.Q.W.F		C9@1(0036)	
		5.9	8.0.0.0.0.0	<input checked="" type="checkbox"/>	2@9(0016)	
		6.0				
		6.1	1.6.6.2.J.F.4		C13@1(0032)-0218612288	
		6.2	X.C.6.3.1.3			
		6.3	U.0.0.5.1	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Problem FLOATING POINT ARCTANGENT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
2.0.0.0 [L0+183]						
1.0.0.0 [L0]	<input checked="" type="checkbox"/>					
		1.8.3.2	B.0.3.6.1		Y	CHAR. OF ARGUMENT
		3.3	X.H.6.3.1.9			
		3.4	X.H.6.3.1.3			
		3.5	X.H.6.3.2.1	<input checked="" type="checkbox"/>		
		3.6	X.H.6.3.2.2			
		3.7	T.1.8.6.0		→ NEG. CHAR.	
		3.8	S.0.3.6.0		1 @ 30	
		3.9	T.0.0.2.0	<input checked="" type="checkbox"/>	→ CHAR. = 0	
		4.0	B.0.3.0.5			EXP. OF ARGUMENT
		4.1	T.1.8.5.3		→ NEG. EXP.	
		4.2	N.0.4.2.8		1 @ 30	L SHIFT 1
		4.3	A.1.9.0.8	<input checked="" type="checkbox"/>		ADDRESS OF 1 @ 1 IN TABLE
		4.4	Y.1.8.4.5			LO TO BRING
		4.5	B.L. ]		1 @ 2	
		4.6	X.H.6.3.2.5			
		4.7	X.H.6.3.2.6	<input checked="" type="checkbox"/>		
		4.8	X.A.6.3.1.3			(Y+1) IN ACC.
		4.9	X.H.6.3.0.0		Y+1	
		5.0	U.1.9.0.3			
2.0.0.0.0.0.2		5.1	4.0.0.0.0.0.0	<input checked="" type="checkbox"/>	1 @ 1	
		5.2	4.0.0.0.0.0.0		1 @ 1	
		5.3	X.C.6.3.3.9			
		5.4	S.0.3.0.5		1 EXP. 1 IN ACC.	
		5.5	N.0.2.6.3	<input checked="" type="checkbox"/>	1 @ 30	L SHIFT 1
		5.6	A.1.9.0.7			ADDRESS OF 1 @ 0 IN TABLE
		5.7	Y.1.9.5.6			LO TO RIGHT SHIFT
		5.8	U.1.9.5.5			
		5.9		<input checked="" type="checkbox"/>		
		6.0	X.C.6.3.3.9			
		6.1	X.S.6.3.1.9			Y  IN ACC.
		6.2	X.H.6.3.1.3			
		6.3	U.1.8.4.0	<input checked="" type="checkbox"/>		

Conditional Stop Code

Carriage Return

Royal McBee Corporation

Problem FLOATING POINT ARCTANGENT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
2.0.0.0.0.0.0.3		1.9.0.0	6.2.G.G.A.W.F.		C9 @ 1	.0964200441
		0.1	3.W.W.W.W.K.3.4		C1 @ 1	.9999993329
		0.2	W.7.1.9.3.9.K.2		C7 @ 1	
		0.3	X.S.6.3.2.5	<input checked="" type="checkbox"/>		
		0.4	X.S.6.3.2.6			(Y-1) IN ACC.
		0.5	U.1.9.2.1			
		0.6				
		0.7	Z.0.3.6.2	<input checked="" type="checkbox"/>	1 @ 0	
		0.8	Z.0.3.6.3		1 @ 1	
2.0.0.0.0.0.0.5		0.9	W.W.G.K.9.4.0.J		C15 @ 1	-.0040540580
		1.0	1.6.6.2.J.F.4		C13 @ 1	.0218612288
		1.1	J.J.4.0.F.5.F	<input checked="" type="checkbox"/>	C5 @ 1	.1994653599
		1.2	W.U.6.G.W.8.W.0		C11 @ 1	-.0559098861
		1.3	A.F.F.9.3.T.8.4		C3 @ 1	-.3332985605
		1.4	X.H.6.3.0.0			
		1.5	S.1.8.5.1	<input checked="" type="checkbox"/>	1 @ 1	
		1.6	S.1.8.5.2		1 @ 1	
		1.7	U.1.9.2.1			(Y-1) IN ACC.
		1.8				
		1.9		<input checked="" type="checkbox"/>		
		2.0				
		2.1	X.D.6.3.0.0			(Y-1/Y+1) = (X @ 0) ~ IN ACC.
		2.2	X.H.6.3.0.2		X @ 0	
		2.3	X.M.6.3.0.2	<input checked="" type="checkbox"/>	X <sup>2</sup> @ 0	
		2.4	X.H.6.3.0.3		"	
		2.5	X.H.6.3.0.4		"	
		2.6	X.H.6.3.0.5		"	
		2.7	X.H.6.3.0.6	<input checked="" type="checkbox"/>	"	
		2.8	X.H.6.3.0.7		"	
		2.9	X.H.6.3.0.8		"	
		3.0	M.1.9.0.9		C15 @ 1	
		3.1	A.1.9.1.0	<input checked="" type="checkbox"/>	C13 @ 1	

Conditional Stop Code

Carriage Return

Royal McBee Corporation

Job No. \_\_\_\_\_ Prog. No. 16.2 Prep. by D. CORY Ck'd. by \_\_\_\_\_

NOTES

Problem FLOATING POINT ARGUMENT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Contents of Address	Notes
		<input checked="" type="checkbox"/>			
		1.9.3.2	X.M.6.3.0.4	X2 @ 0	
		3.3	A.1.9.1.2	C11 @ 1	
		3.4	X.M.6.3.0.6	X2 @ 0	
		3.5	A.1.9.0.0	<input checked="" type="checkbox"/> C9 @ 1	
		3.6	X.M.6.3.0.8	X2 @ 0	
		3.7	A.1.9.0.2	C7 @ 1	
		3.8	X.M.6.3.0.3	X2 @ 0	
		3.9	A.1.9.1.1	<input checked="" type="checkbox"/> C5 @ 1	
		4.0	X.M.6.3.0.5	X2 @ 0	
		4.1	A.1.9.1.3	C3 @ 1	
		4.2	X.M.6.3.0.7	X2 @ 0	
		4.3	A.1.9.0.1	<input checked="" type="checkbox"/> C1 @ 1	
		4.4	X.M.6.3.0.2	X @ 0	
		4.5	A.0.5.3.1	Y4 @ 1	.78539816
		4.6	X.C.6.3.3.2		
		4.7	H.0.3.0.5	<input checked="" type="checkbox"/> 0 = EXP. OF RESULT	
		4.8	U.1.9.4.9		
		4.9	X.B.6.3.2.1	Y	CHAR. OF ARGUMENT
		5.0	T.1.9.5.2	→ COMP. RESULT	
		5.1	U.1.9.6.0	<input checked="" type="checkbox"/>	
		5.2	X.C.6.3.3.1		
		5.3	X.S.6.3.3.2		
		5.4	U.0.9.0.0	→ EXIT	NEG. CHAR. IN ACC.
		5.5	X.B.6.3.1.3	<input checked="" type="checkbox"/> 111	
		5.6	M. [ ]	1 @ 8	R SHIFT = 1 EXP. 1
		5.7	U.1.9.5.8		
		5.8	A.0.3.1.6	1 @ 1	
		5.9	U.1.9.1.4	<input checked="" type="checkbox"/>	
		6.0	X.B.6.3.3.2		
		6.1	U.0.2.3.4	→ EXIT	POS. CHAR. IN ACC.
		6.2			
		6.3		<input checked="" type="checkbox"/>	

Conditional Stop Code



Carriage Return

Problem EXPONENTIAL SUBROUTINE  $K^X$   $K=2$ ;  $e$  and  $10$  Track

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
3.0.0.0						
1.0.0.0		<input checked="" type="checkbox"/>				
		0.0	M.0.0.1.0		$\log_{10}^2 @ 0$	$K=2$
		0.1	U.0.0.0.3			
		0.2	M.0.0.3.1		$\log_{10}^e @ 0$	$K=e$
		0.3	T.0.0.2.5	<input checked="" type="checkbox"/>		$K=10$
		0.4	U.0.0.0.5			
		0.5	R.0.0.5.5			
		0.6	U.0.0.3.3			
		0.7	U.0.0.0.8	<input checked="" type="checkbox"/>		
		0.8	D.0.0.5.8			
		0.9	U.L. ]		EXIT	
7.0.0.0.0.1.5		1.0	2.6.8.8.2.6.F.2		$\log_{10}^2 @ 0$	3010299957
		1.1		<input checked="" type="checkbox"/>		
		1.2	[ ]			0054, 0053
		1.3	2.F.6.F.2.0.T.J		$a_2 @ 1$	0048.662730884
		1.4	3.3.3.3.3.3.3.4		$.1 @ -2$	0028
		1.5	[ ]	<input checked="" type="checkbox"/>		0036, 0043
		1.6				
		1.7	[ ]			0038, 0045
		1.8	0.1.0.8.W.9.2.0		$a_3 @ -4$	0039.0009326426
		1.9	[ ]	<input checked="" type="checkbox"/>		0033, 0047
		2.0	[ ]			0034, 0041
		2.1	[ ]			0035, 0049
		2.2	2.4.K.7.6.3.W.2		$a_1 @ 2$	0050.1.1512927260
		2.3	[ ]	<input checked="" type="checkbox"/>		0037, 0051
		2.4	1.0.0.0.0.0.0.0		$1 @ 3$	0052
		2.5	A.0.0.6.1			
		2.6	R.0.0.5.5			
		2.7	U.0.0.3.3	<input checked="" type="checkbox"/>		
		2.8	M.0.0.1.4			
		2.9	U.0.0.0.9			
7.0.0.0.0.0.0.3		3.0	1.2.F.J.W.7.0.J		$a_4 @ -1$	0044.07285173666
		3.1	3.7.9.6.W.6.2.F		$\log_{10}^e @ 0$	0002.4342844818 <sup>e</sup>

Conditional Stop Code  Carriage Return

Problem EXPONENTIAL SUBROUTINE  $K^X$   $K=2$ ;  $e$  and  $10$  Track

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		3.2	2.0.8.W.W.I.W.F		$a_3 @ 0$	0046.254393574
		3.3	H.0.0.1.9		$X @ 1$	
		3.4	H.0.0.2.0			
		3.5	H.0.0.2.1	<input checked="" type="checkbox"/>		
		3.6	H.0.0.1.5			
		3.7	H.0.0.2.3			
		3.8	H.0.0.1.7			
		3.9	M.0.0.1.8	<input checked="" type="checkbox"/>	$a_7 @ -4$	
		4.0	A.0.0.6.2		$a_6 @ -3$	
		4.1	M.0.0.2.0		$X @ 1$	
		4.2	A.0.0.5.7		$a_5 @ -2$	
		4.3	M.0.0.1.5	<input checked="" type="checkbox"/>		
		4.4	A.0.0.3.0		$a_4 @ -1$	
		4.5	M.0.0.1.7			
		4.6	A.0.0.3.2		$a_3 @ 0$	
		4.7	M.0.0.1.9	<input checked="" type="checkbox"/>		
		4.8	A.0.0.1.3		$a_2 @ 1$	
		4.9	M.0.0.2.1			
		5.0	A.0.0.2.2		$a_1 @ 2$	
		5.1	M.0.0.2.3	<input checked="" type="checkbox"/>		
		5.2	A.0.0.2.4		$1 @ 3$	
		5.3	H.0.0.1.2		$P(1) @ 3$	
		5.4	M.0.0.1.2		$P(1) @ 6$	
		5.5	U.L. ]	<input checked="" type="checkbox"/>		
1.0.0.0.0.0.0.1		5.6				
		5.7	0.8.0.6.6.6.J.8		$a_5 @ -2$	0042.0114211988
		5.8	2.0.0.0.0.0.0.0		$1 @ 2$	0008
		5.9		<input checked="" type="checkbox"/>		
		6.0				
		6.1	4.0.0.0.0.0.0.0		$1 @ 1$	0025
		6.2	0.2.9.K.J.I.F.H		$a_6 @ -3$	0040.00255491
		6.3		<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem FLOATING POINT EX Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
<u>7.0.0.0 [L+2.100]</u>						
<u>1.0.0.0 [L0]</u>	<input checked="" type="checkbox"/>					
<u>7.0.0.0.0.0.2</u>		<u>2.1.0.0</u>		<input checked="" type="checkbox"/>	<u>3 @ 29</u>	
		<u>0.1</u>	<u>4.K.1.0, 4.K.4.2</u>		<u>2 LOG 102 @ 0</u>	<u>.6020599914</u>
		<u>0.2</u>	<u>M.0.3.6.2</u>			
		<u>0.3</u>	<u>X.B.6.3.3.9</u>	<input checked="" type="checkbox"/>		
		<u>0.4</u>	<u>U.2.1.0.6</u>			
		<u>0.5</u>	<u>X.Z.0.0.0.1</u>		<u>1 @ 29</u>	
		<u>0.6</u>	<u>N.L. ]</u>			
		<u>0.7</u>	<u>E.2.1.5.0</u>	<input checked="" type="checkbox"/>		
		<u>0.8</u>	<u>U.2.2.0.2</u>			
		<u>0.9</u>	<u>N.0.4.2.8</u>			
		<u>1.0</u>	<u>X.B.6.3.3.9</u>			
		<u>1.1</u>		<input checked="" type="checkbox"/>		
		<u>1.2</u>	<u>M.2.1.4.1</u>		<u>2 LOG 102 @ 0</u>	
		<u>1.3</u>	<u>A.2.1.4.2</u>		<u>2 LOG 102 @ 0</u>	
		<u>1.4</u>	<u>U.2.2.3.8</u>			
		<u>1.5</u>	<u>B.0.4.5.8</u>	<input checked="" type="checkbox"/>		<u>ENTER ROUTINE</u>
		<u>1.6</u>	<u>M.2.1.5.2</u>		<u>LOG 2 @ 2</u>	
		<u>1.7</u>	<u>X.H.6.3.3.9</u>			
		<u>1.8</u>	<u>T.2.1.2.6</u>		<u>→ NEG. CHAR. OF ARGUMENT</u>	
		<u>1.9</u>	<u>B.0.3.0.5</u>	<input checked="" type="checkbox"/>	<u>ACC. EXPONENT</u>	
		<u>2.0</u>	<u>N.0.4.5.6</u>		<u>-1 @ 30</u>	
		<u>2.1</u>	<u>S.2.1.0.0</u>		<u>3 @ 29</u>	
		<u>2.2</u>	<u>T.2.1.5.8</u>		<u>→ POS EXPONENT</u>	
		<u>2.3</u>	<u>A.2.1.0.2</u>	<input checked="" type="checkbox"/>	<u>ML (1 @ 0)</u>	
		<u>2.4</u>	<u>U.2.1.5.5</u>			
<u>7.0.0.0.0.0.1</u>		<u>2.5</u>	<u>4.0.0.0.0.0.0</u>		<u>1 @ 1</u>	
		<u>2.6</u>	<u>B.0.3.0.5</u>		<u>ACC. EXP.</u>	
		<u>2.7</u>	<u>N.0.4.5.6</u>	<input checked="" type="checkbox"/>	<u>-1 @ 30</u>	
		<u>2.8</u>	<u>S.2.1.0.0</u>		<u>3 @ 29</u>	
		<u>2.9</u>	<u>T.2.1.4.4</u>		<u>→ EXP - 2</u>	
		<u>3.0</u>	<u>A.2.1.0.2</u>			
		<u>3.1</u>	<u>U.2.1.3.2</u>	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem FLOATING POINT EX Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		<u>2.1.3.2</u>	<u>C.2.1.1.1</u>			
		<u>3.3</u>	<u>C.0.3.0.5</u>			
		<u>3.4</u>	<u>U.2.1.1.0</u>			
		<u>3.5</u>	<u>X.H.6.3.0.7</u>	<input checked="" type="checkbox"/>		
		<u>3.6</u>	<u>B.0.6.0.1</u>			
		<u>3.7</u>	<u>A.0.3.0.5</u>			
		<u>3.8</u>	<u>U.0.1.5.4</u>			
<u>7.0.0.0.0.0.5</u>		<u>3.9</u>	<u>1.5.3.5, 1.7.6.6</u>	<input checked="" type="checkbox"/>	<u>2 @ 2</u>	
		<u>4.0</u>	<u>4</u>		<u>1 @ 29</u>	
		<u>4.1</u>	<u>4.K.1.0, 4.K.4.2</u>		<u>2 LOG 102 @ 0</u>	<u>.6020599914</u>
		<u>4.2</u>	<u>4.K.1.0, 4.K.4.2</u>		<u>2 LOG 102 @ 0</u>	<u>"</u>
		<u>4.3</u>	<u>2.0.0.0.0.0.0</u>	<input checked="" type="checkbox"/>	<u>1 @ 2</u>	
		<u>4.4</u>	<u>A.2.1.0.9</u>			
		<u>4.5</u>	<u>U.2.1.4.6</u>			
		<u>4.6</u>	<u>Y.2.2.2.5</u>			
		<u>4.7</u>	<u>A.2.1.0.5</u>	<input checked="" type="checkbox"/>	<u>1 @ 29</u>	
		<u>4.8</u>	<u>Y.2.1.0.6</u>			
		<u>4.9</u>	<u>U.2.2.2.4</u>			
<u>7.0.0.0.0.0.5</u>		<u>5.0</u>	<u>7.u.u.u.u.u.u.u.u</u>			
		<u>5.1</u>		<input checked="" type="checkbox"/>		
		<u>5.2</u>	<u>2.0.2.F.8.0.J.8</u>		<u>LOG 2 @ 2</u>	<u>1-42695037</u>
		<u>5.3</u>	<u>7.u.u.u.u.u.u.u.u</u>			
		<u>5.4</u>				
		<u>5.5</u>	<u>C.2.2.2.0</u>	<input checked="" type="checkbox"/>		
		<u>5.6</u>	<u>U.2.2.1.5</u>			
		<u>5.7</u>				
		<u>5.8</u>	<u>A.2.1.0.9</u>		<u>NK (1 @ 30)</u>	
		<u>5.9</u>	<u>U.2.1.6.0</u>	<input checked="" type="checkbox"/>		
		<u>6.0</u>	<u>Y.2.2.1.1</u>			
		<u>6.1</u>	<u>A.2.1.4.0</u>		<u>1 @ 29</u>	
		<u>6.2</u>	<u>H.2.2.2.0</u>			
		<u>6.3</u>	<u>U.2.2.1.0</u>	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem FLOATING POINT ex Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		22	0.0			
		01	S.0.8.4.4		1 @ 30	
		02	T.2.2.1.3			
		03	S.2.1.5.3	<input checked="" type="checkbox"/>		
		04	U.2.2.0.5			
		05	M.2.1.4.1		2 Log 10 <sup>2</sup> @ 0	
		06	A.2.1.4.2		2 Log 10 <sup>2</sup> @ 0	
		07	X.H.6.3.5.7	<input checked="" type="checkbox"/>		
		08	B.0.8.4.4		1 @ 30	
		09	U.2.2.3.2			
		10	X.B.6.3.3.9			
		11	M.L. J	<input checked="" type="checkbox"/>		
		12	U.2.2.1.5			
		13	B.0.4.6.3		1 @ 2	
		14	U.0.0.4.3			
		15	A.0.8.4.4	<input checked="" type="checkbox"/>	1 @ 30	
		16	C.0.3.0.5			
		17	X.B.6.3.3.9			
		18	U.2.2.2.0			
7.0.0.0.0.0.2		19	R.0.6.6.6.J	<input checked="" type="checkbox"/>	2.5 @ 2	
		20				
		21	F.2.1.5.0			
		22	M.2.1.0.1		2 Log 10 <sup>2</sup> @ 0	
		23	U.2.2.3.8	<input checked="" type="checkbox"/>		
		24	X.B.6.3.3.9			
		25	M.L. J			
		26	H.0.3.0.5			
		27	U.2.1.0.3	<input checked="" type="checkbox"/>		
7.0.0.0.0.0.4		28	2.5.5.9.0.0.2		2.4 @ 2	
		29				
		30	T.F.3.0.4			
		31	1.4.0.0.0.0	<input checked="" type="checkbox"/>	2.6 @ 2	

Conditional Stop Code

Carriage Return

Problem FLOATING POINT ex Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		22	3.2		A.0.3.0.5	
		3.3	H.0.3.0.5			
		3.4	U.2.2.3.5			
		3.5	X.B.6.3.5.7	<input checked="" type="checkbox"/>		
		3.6	U.2.2.3.8			
7.0.0.0.0.0.1		3.7	8.2.3.W.K.W.Q		Q.3 @ 2	
		3.8	X.H.6.3.1.7			
		3.9	X.H.6.3.1.8	<input checked="" type="checkbox"/>		
		4.0	X.H.6.3.1.9			
		4.1	X.H.6.3.2.0			
		4.2	X.H.6.3.2.1			
		4.3	X.H.6.3.2.2	<input checked="" type="checkbox"/>		
		4.4	M.2.2.3.0		Q.7 @ 2	.00093264267
		4.5	A.2.2.3.1		Q.6 @ 2	.00255491796
		4.6	X.M.6.3.1.8			
		4.7	A.2.2.1.9	<input checked="" type="checkbox"/>	Q.5 @ 2	.0174211988
		4.8	X.M.6.3.2.0			
		4.9	A.2.2.2.8		Q.4 @ 2	.07295173666
		5.0	X.M.6.3.2.2			
		5.1	A.2.2.3.7	<input checked="" type="checkbox"/>	Q.3 @ 2	.25439357484
		5.2	X.M.6.3.1.7			
		5.3	A.2.1.3.9		Q.2 @ 2	.66273088429
		5.4	X.M.6.3.1.9			
		5.5	A.0.7.2.0	<input checked="" type="checkbox"/>	Q.1 @ 2	1.15129277603
		5.6	X.M.6.3.2.1			
		5.7	S.2.1.4.3		1 @ 2	
		5.8	T.2.2.6.2			
		5.9	A.0.8.4.5	<input checked="" type="checkbox"/>	1 @ 1	
		6.0	M.2.1.2.5		1 @ 1	
		6.1	U.2.1.3.5			
		6.2	A.0.3.1.3			
		6.3	U.0.0.4.3	<input checked="" type="checkbox"/>	→ EXIT	

Conditional Stop Code

Carriage Return



Problem LOGK X SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
7.000							
1.000	<input checked="" type="checkbox"/>						
		00.0.0	S.0.1.3.6	1	@30		
		01	T.00.0.8				→ ARG. = 0
		02	S.0.1.2.4	1	@5-1 @30		
		03	T.00.1.1		<input checked="" type="checkbox"/>		→ 5 LEADING ZEROS
		04	A.0.1.2.6	1	@5		
		05	E.0.1.2.7			uuuuuuuu	TO DROP LAST 5 BITS
		06	R.00.5.6				
		07	V.00.1.6		<input checked="" type="checkbox"/>		
		08	X.7.00.0.0				
		09	L				
		10	L				
		11	A.0.1.2.6		<input checked="" type="checkbox"/>	1 @5	
		12	N.00.4.8	1	@26		SHIFT LEFT 5 BITS
		13	R.00.5.6				
		14	V.00.1.6				
7.00.0000.1		15	1.4.00.00.00		<input checked="" type="checkbox"/>	5 @5	
		16	A.0.1.0.2				
		17	S.0.1.3.9				
		18	T.0.1.5.5				
		19	A.00.6.2		<input checked="" type="checkbox"/>	1 @1 + 1 @30	
		20	H.00.4.9			X	
		21	M.0.1.5.0	1	@1		SHIFT RIGHT 1 BIT
		22	A.0.1.5.1		$\sqrt{2}$ @2		
		23	H.00.0.9		<input checked="" type="checkbox"/>	X + $\sqrt{2}$ @2	
		24	R.L.	1	+2		9 @29
		25	N.00.6.1	1	@1		SHIFT LEFT 24 BITS
		26	H.0.1.4.1	9	@5		
		27	B.00.4.9		<input checked="" type="checkbox"/>	X	
		28	M.0.1.5.0	1	@1		SHIFT RIGHT 1 BIT
		29	S.0.1.5.1		$\sqrt{2}$ @2		
		30	D.00.0.9		X + $\sqrt{2}$		
		31	H.00.1.0		<input checked="" type="checkbox"/>	Y @ 0	$y = \frac{x - \sqrt{x^2 - 1}}{x + \sqrt{x^2 - 1}}$

Conditional Stop Code  Carriage Return

Problem LOGK X SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		02.3.2	M.00.1.0			Y @ 0	
		3.3	H.0.1.1.9			Y2 @ 0	
		3.4	V.0.0.3.5				
		3.5	H.0.1.2.1		<input checked="" type="checkbox"/>	Y2 @ 0	
		3.6	V.0.0.3.8				
		3.7	X.Z.00.0.1			1 @29 (0051) (0108)	
		3.8	M.0.1.0.3			C1 @5	@5
		3.9	H.0.1.1.8		<input checked="" type="checkbox"/>	C5 @5	
		4.0	M.0.1.1.9			Y2 @ 0	@5
		4.1	A.0.1.2.0			C3 @5	
		4.2	M.0.1.2.1			Y2 @ 0	@5
		4.3	V.0.0.4.4		<input checked="" type="checkbox"/>		
		4.4	A.0.1.2.3			C1 @5	
		4.5	M.00.1.0			Y @ 0	@5
		4.6	A.0.1.2.5			.5 @5	
		4.7	V.0.0.5.0		<input checked="" type="checkbox"/>		
		4.8	X.Z.00.0.8			1 @26 (0012)	
		4.9	L			(0020) (0027) (0063)	
		5.0	H.0.1.2.9			MANTISSA 5	
		5.1	R.00.3.7		<input checked="" type="checkbox"/>	1 @29	
		5.2	A.0.0.2.4			L (L+2)	
		5.3	Y.0.1.1.1			L (L+3)	
		5.4	H.0.1.4.0			9 @15+1 @29	
		5.5	V.0.1.0.7		<input checked="" type="checkbox"/>		
		5.6	R.L.			0 0-5 @5	Acc. CONTAINS
		5.7	S.0.1.2.9			MANTISSA 5	"(-CHAR.) 5"
		5.8	V.00.5.9				
		5.9	M.0.1.4.5		<input checked="" type="checkbox"/>	-1/2 @2k	LOGKX @ 64 ACC.
		6.0	V.0.1.2.2				
7.000.00.0.2.1		6.1	1.0.00.00.0			1 @1 (0025)	
		6.2	4.00.00.0.0.2			1 @1+1 @30 (0017)	
		6.3	B.00.4.9		<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 18.0 Prep. by M. Kaye Ck'd. by \_\_\_\_\_ Date 11-7-56

Problem LOGX X SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		01.00	V.01.52			
3.000.00.03		01	K.3.F.3.F.02		-1/2 log <sub>2</sub> e (0150) -6931471506 <sup>3</sup>	
		02	I.		(0016) (0130)	
		03	I.G.F.9.6		C <sub>1</sub> <sup>5</sup> (0038) 434259751292	
		04	G.01.4.7		T.wwwwwwww 7Rep 5len	
		05	S.01.4.1		9 <sup>25</sup>	
		06	V.0.0.5.0			
		07	G.0.1.2.2		EXIT	
		08	S.0.0.3.7		1 <sup>29</sup>	
		09	V.0.1.1.1			
		10				
		11	A.I.		A+3 CONTAINS "K" CODE	
		12	T.01.4.8		→ K=2	
		13	S.0.1.4.2		1 <sup>29</sup>	
		14	T.01.4.3		→ H=C	
		15	A.01.3.7		-1/2 log <sub>2</sub> 10 <sup>2</sup> / HERR; K=10	
		16	A.01.4.5		MULTIPLIER	
		17	V.0.0.6.3			
3.00000.01.2		18	2.4.0.6.5.2.0		C <sub>2</sub> <sup>5</sup> (0039) 596504342656 <sup>3</sup>	
		19	I.		(0033) (0140)	
		20	3.K.A.0.2.4.I		C <sub>3</sub> <sup>5</sup> (0044) 9618 0116.2216 5	
		21	I.		(0035) (0042)	
		22	V.F.		EXIT	
		23	G.B.F.F.3.6.2		C <sub>1</sub> <sup>5</sup> (0044) 2885390072738 <sup>3</sup>	
		24	3.wwwwwwww		1 <sup>25</sup> - 1 <sup>30</sup> (0002)	
		25	2.0.0.0.0.0		.5 <sup>5</sup> (0046)	
		26	4.0.0.0.0.0		1 <sup>5</sup> (0044) (0126)	
		27	wwwwwwwww		(0005) (0155)	
		28				
		29	I.		MANTISSA (0050) (0057)	
		30	A.0.1.0.2			
		31	V.0.0.1.6			

Conditional Stop Code

Carriage Return

Job No. \_\_\_\_\_ Prog. No. 18.0 Prep. by M. Kaye Ck'd. by \_\_\_\_\_ Date 11-7-56

Problem LOGX X SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
3.00.00.01.1		01.3.2				
		3.3				
		3.4	J.00000000		-1 <sup>2</sup> (0148)	
		3.5	4.00000.0.0.2		1 <sup>2</sup> + 1 <sup>30</sup> (0156)	
		3.6			1 <sup>30</sup> (0000)	
		3.7	Q.J.G.G.J.6.0		-1/2 log <sub>2</sub> 10 (0115) -301029957 <sup>3</sup>	
		3.8	2.00000000		1 <sup>2</sup> (0152)	
		3.9	4.00000000		1 <sup>2</sup> (0017)	
		4.0	9.000.0.		(0054)	
		4.1	I.		9 <sup>25</sup> (0026) (0105)	
		4.2	I.		1 <sup>29</sup> (0113)	
		4.3	B.0.1.0.1		-1/2 log <sub>2</sub> e <sup>2</sup>	
		4.4	V.0.1.1.6			
3.00000.0.0.3		4.5	I.		(0059) (0116)	
		4.6				
		4.7	T.wwwwwwww		(0104)	
		4.8	B.0.1.3.4			
		4.9	V.0.1.1.6			
3.00000.0.0.2		5.0	4.0.0.0.0.0.0		1 <sup>2</sup> (0021) (0029)	
		5.1	2.K.4.1.3.J.J.J		1.4112.135.6.2.0 2 (0023) (0059)	
		5.2	M.0.1.3.8		1 <sup>6</sup> SHIFT LEFT 25	
		5.3	V.0.1.0.4			
		5.4				
		5.5	E.0.1.2.7		wwwwwwwww	
		5.6	A.0.1.3.5		1 <sup>2</sup> + 1 <sup>30</sup>	
		5.7	V.0.1.3.0			
		5.8				
		5.9				
		6.0				
		6.1				
		6.2				
		6.3				

Conditional Stop Code

Carriage Return

Job No. \_\_\_\_\_ Prog. No. 18.1 Prep. by MJK Ck'd. by \_\_\_\_\_ Date 6-11-57

Problem LOG K X (FLOATING POINT) Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
2.0.0.0 (10+2000)						
1.0.0.0 (L0)	<input checked="" type="checkbox"/>					
		2.0.0.0	X.Z.0.0.1.6		1 @ 25	
		0.1	X.A.6.3.5.1		EXP. @ 5	
		0.2	U.2.0.0.3			
		0.3	M.2.0.2.5	<input checked="" type="checkbox"/>	√10 @ 2 @ 0	
		0.4	U.0.2.3.3		→	EXIT TO NORMALIZE
		0.5	X.Z.0.0.0.0			ERROR HALT
		0.6	X.C.6.3.4.2		0 → Acc.	
		0.7	X.C.6.3.0.7	<input checked="" type="checkbox"/>		
		0.8	U.0.1.5.4		→	STORE ZERO IN ACC
7.0.0.0 0.0.0.8		0.9	I.G.T.F.0.9.6		C 7 @ 5	434259751292
		1.0	2.4.0.6.T.2.0		C 5 @ 5	576584342056
		1.1	2.0.0.0.0.0	<input checked="" type="checkbox"/>	.5 @ 5	
		1.2				
		1.3	3.K.8.P.2.4.J		C 3 @ 5	961800763286
		1.4				
		1.5	G.8.F.F.3.6.2	<input checked="" type="checkbox"/>	C, @ 5	2.885390072738
		1.6				
		1.7	B.0.2.6.0		CHAR.	ENTER HERE
		1.8	S.2.0.6.1		1 @ 30	
		1.9	T.2.0.0.5	<input checked="" type="checkbox"/>	→ ARG. ≤ 0 : ERROR	
		2.0	A.0.2.6.3		1 @ 30	
		2.1	A.2.0.5.7		√2 @ 2	
		2.2	U.2.0.2.3			
		2.3	X.C.6.3.0.9	<input checked="" type="checkbox"/>		
		2.4	U.2.0.2.6			
7.0.0.0 0.0.0.1		2.5	S.8.E.9.0.6.U.J		√10 @ 2 @ 0	6931471806 @ 1
		2.6	B.0.3.0.5		EXP. @ 30	
		2.7	S.0.2.6.3	<input checked="" type="checkbox"/>	1 @ 30	
		2.8	D.2.0.0.0		1 @ 25	HALT IF EXP. 1 73
		2.9	X.H.6.3.5.1		@ 5	
		3.0	S.2.0.5.9		1 @ 30	STOP IF EXP. = -32
		3.1	B.2.0.6.0	<input checked="" type="checkbox"/>	4 @ 30	

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 18.1 Prep. by MJK Ck'd. by \_\_\_\_\_ Date 6-11-57

Problem LOG K X (FLOATING POINT) Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		2.0.3.2	U.2.0.3.3			
		3.3	C.0.3.0.5			EXP. OF ANSWER
		3.4	U.2.0.3.5			
		3.5	S.2.0.5.7	<input checked="" type="checkbox"/>	√2 @ 2	
		3.6	A.0.4.5.8		ACC. CHAR	X - √2
		3.7	X.D.6.3.0.9		X + √2	Quot = $\frac{X - \sqrt{2}}{X + \sqrt{2}}$ @ 1 =
		3.8	X.H.6.3.1.7		Y @ 0	
		3.9	X.M.6.3.1.7	<input checked="" type="checkbox"/>		
		4.0	X.H.6.3.1.2		Y 2 @ 0	
		4.1	U.2.0.4.2			
		4.2	X.H.6.3.1.4		Y 2 @ 0	
		4.3	U.2.0.4.4	<input checked="" type="checkbox"/>		
		4.4	M.2.0.0.9		C 7 @ 5	
		4.5	A.2.0.1.0		C 5 @ 5	
		4.6	U.2.0.4.7			
		4.7	X.M.6.3.1.2	<input checked="" type="checkbox"/>	Y 2 @ 0	
		4.8	A.2.0.1.3		C 3 @ 5	
		4.9	X.M.6.3.1.4			
		5.0	A.2.0.1.5		C, @ 5	
		5.1	U.2.0.5.2	<input checked="" type="checkbox"/>		
		5.2	X.M.6.3.1.7		Y @ 0	
		5.3	A.2.0.1.1		.5 @ 5	
		5.4	U.2.0.0.1			
7.0.0.0 0.0.0.7		5.5		<input checked="" type="checkbox"/>		
		5.6				
		5.7	2.K.4.1.3.T.J.T		√2 @ 2	1.414213562
		5.8				
		5.9		<input checked="" type="checkbox"/>	2	
		6.0			8	
		6.1			2	
		6.2				
		6.3		<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 19.0 Prep. by M.K. Ck'd. by \_\_\_\_\_

Problem ALPHANUMERIC PRINTOUT SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
5.000						
7.000						
		00.00	AL			Pick up code word
		01	E.00.44		7Q7Q7Q7R	TRIM WORD
		02	V.00.03			
		03	S.00.39		X7Q00000	
		04	T.00.20			→ CONTINUE
		05	V.00.17			→ EXIT CODE
2.00000008		06	7.00000000		(0020)(0027)	
		07	L		X CODE NOS. WORD (0031) (0028)	
		08	H.00.00		1 <sup>Q</sup> 17 (0022) (0029)	
		09	J.W.00		MARK (0023) (0030)	
		10	S.00.68		X P0026 (0024) (0031)	
		11	J		X 3 <sup>Q</sup> 29 (0046)	
		12			4. 1 <sup>Q</sup> 29 (0033) (0040)	
		13	L		J. CTR.	
		14	B.000.0			
		15	A.00.51		X 1 <sup>Q</sup> 29	
		16	V.00.42			
		17	B.00.51		1 <sup>Q</sup> 29	
		18	A.0000			
		19	V.00.56		X	
		20	H.00.06		7Q 000000	
		21	H.00.07			
		22	M.00.08		1 <sup>Q</sup> 17	SHIFT TO TRACK Pos
		23	E.00.09		X 00003W00	
		24	H.00.10		X P0026	
		25	C.00.41			
		26	V.00.14			
		27	H.00.06		X 7Q 000000	
		28	H.00.07			
		29	M.00.08		1 <sup>Q</sup> 17	SHIFT TO TRACK Pos
		30	E.00.09		00003W00	
		31	A.00.10		X P0026	

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 19.0 Prep. by M.K. Ck'd. by \_\_\_\_\_

Problem ALPHANUMERIC PRINTOUT SUBROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		00.32	C.00.47			
		33	S.00.12		1 <sup>Q</sup> 29	
		34	H.00.13		CTR.	
		35	XZ.00.00		X DELAY	
		36	T.00.00			
		37	V.00.47			
2.00.00.002		38			1.00	1 <sup>Q</sup> 23 (0052)
		39	7.00.00.000		X (0003) (0053)	X DELAY
		40	B.00.00			
		41	V.00.56			
		42	Y.00.00			
		43	V.00.46		X	
2.00.00.002		44	7.0.7Q.7Q.7Q		MARK (0002)	
		45				
		46	B.00.11			
		47	PL		J. X	
		48	H.00.13		CTR.	
		49	M.00.07		NO.	
		50	V.00.52			
		51	XZ.00.01		X 1 <sup>Q</sup> 29 (0015)	
		52	N.00.38		1 <sup>Q</sup> 23	SHIFT LEFT 2 Places
		53	S.00.39		7Q 000000	
		54	T.00.27			
		55	V.00.39		X	
		56	Y.00.57			
		57	V.L.		J. EXIT	
		58				
		59				X
		60				
		61				
		62				
		63				X

Conditional Stop Code



Carriage Return

LGP-30 CODING SHEET

Page 1 of 5

Job No. \_\_\_\_\_ Prog. No. 20.0 Prep. by Cory Ck'd. by \_\_\_\_\_ Date 9-5-57

Problem ARCSINE - ARCCOSINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
1.000							
1.000	<input checked="" type="checkbox"/>						
		0.0.0.0	T.000.05				→ Neg. Arg. ARCSINE
		0.1	V.0.0.14				→ Pos. Arg. ARCSINE
		0.2					
		0.3			<input checked="" type="checkbox"/>		
		0.4					
		0.5	X.C.6.3.21				
		0.6	X.5.6.3.21				1 Arg. 1 <sup>01</sup>
		0.7	R.0.0.4.3		<input checked="" type="checkbox"/>		
		0.8	V.0.0.44				
		0.9	X.C.6.3.18				
		1.0	X.5.6.3.18				
		1.1	V.0.0.21		<input checked="" type="checkbox"/>		→ EXIT
2.0000.00.2		1.2					
		1.3	J.6.6.4.4.7.5				(-180/π) 0 <sup>1</sup>
		1.4	R.0.0.4.3				
		1.5	V.0.0.44		<input checked="" type="checkbox"/>		
		1.6	V.0.0.21				→ EXIT
2.0000.00.15		1.7					
		1.8					
		1.9			<input checked="" type="checkbox"/>		
		2.0					
		2.1	V.0.0.00				EXIT
		2.2	W.5.F.8.5.K.4.0				A <sub>7</sub> <sup>0-6</sup> - .0012624911
		2.3	L.6.5.2.1.F.0		<input checked="" type="checkbox"/>		A <sub>6</sub> <sup>0-5</sup> - .0066700801
		2.4	4.00.00.00.0				1 <sup>01</sup>
		2.5	K.K.0.0.0.6.9.5				A <sub>5</sub> <sup>0-4</sup> - .0170881256
		2.6	Q.4.8.8.0.6.5.6				A <sub>4</sub> <sup>0</sup> - .2145988016
		2.7	L.W.F.2.1.W.0.F		<input checked="" type="checkbox"/>		A <sub>4</sub> <sup>0-3</sup> - .0308918810
		2.8					
		2.9	Q.6.4.W.8.K.6.6				A <sub>3</sub> <sup>0-2</sup> - .0501743046
		3.0					
		3.1	L.6.5.7.5.3.6.0		<input checked="" type="checkbox"/>		A <sub>2</sub> <sup>0-1</sup> - .0889789874

Conditional Stop Code



Carriage Return

Royal McBee Corporation

LGP-30 CODING SHEET

Page 2 of 5

Job No. \_\_\_\_\_ Prog. No. 20.0 Prep. by Cory Ck'd. by \_\_\_\_\_ Date 9/5/57

Problem ARCSINE - ARCCOSINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		00.3.2	X.5.6.3.18			X <sup>01</sup>	
		3.3	M.0.2.0.5			1 <sup>01</sup>	(1-x) <sup>02</sup>
		3.4	R.0.1.5.0				
		3.5	V.0.1.0.0		<input checked="" type="checkbox"/>		→ SQ. ROOT
		3.6	V.0.0.3.7				
		3.7	X.M.6.3.1.6				(cos + sin x) <sup>01</sup>
		3.8	V.0.0.4.1				
2.0000.00.2		3.9	L.6.8.0.0.0.0		<input checked="" type="checkbox"/>		90 <sup>09</sup>
		4.0					
		4.1	M.0.0.1.3				(-180/π) <sup>07</sup>
		4.2	A.0.2.2.1				71 <sup>09</sup>
		4.3	V.L. . . . .		<input checked="" type="checkbox"/>		
		4.4	X.H.6.3.1.6			X <sup>01</sup>	
		4.5	X.H.6.3.2.4			"	
		4.6	X.H.6.3.1.8			"	
		4.7	X.H.6.3.1.9		<input checked="" type="checkbox"/>	"	
		4.8	X.H.6.3.2.0			"	
		4.9	X.H.6.3.2.8			"	
		5.0	M.0.0.2.2			A <sub>7</sub> <sup>0-6</sup>	
		5.1	A.0.0.2.3		<input checked="" type="checkbox"/>	A <sub>6</sub> <sup>0-5</sup>	
		5.2	X.M.6.3.2.4			X <sup>01</sup>	
		5.3	A.0.0.2.5			A <sub>5</sub> <sup>0-4</sup>	
		5.4	X.M.6.3.1.9			X <sup>01</sup>	
		5.5	A.0.0.2.7		<input checked="" type="checkbox"/>	A <sub>4</sub> <sup>0-3</sup>	
		5.6	X.M.6.3.2.8			X <sup>01</sup>	
		5.7	A.0.0.2.9			A <sub>3</sub> <sup>0-2</sup>	
		5.8	X.M.6.3.1.6			X <sup>01</sup>	
		5.9	A.0.0.3.1		<input checked="" type="checkbox"/>	A <sub>2</sub> <sup>0-1</sup>	
		6.0	X.M.6.3.1.8			X <sup>01</sup>	
		6.1	A.0.0.2.6			A <sub>1</sub> <sup>0</sup>	
		6.2	V.0.2.0.6				
		6.3			<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Royal McBee Corporation



Job No. \_\_\_\_\_ Prog. No. 20.0 Prep. by CORY Ck'd. by \_\_\_\_\_ Date 9-5-57

Problem ARCSINE - ARCCOSINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>					
<u>0.0000.06</u>		<u>20.0</u>					
		<u>0.1</u>					
		<u>0.2</u>	<u>168.00.00.0</u>			<u>90°</u>	
		<u>0.3</u>				<input checked="" type="checkbox"/>	
		<u>0.4</u>					
		<u>0.5</u>	<u>4.0000.00.0</u>			<u>1°</u>	
		<u>0.6</u>	<u>X16.3.28</u>			<u>X°</u>	
		<u>0.7</u>	<u>A.0.2.2</u>			<input checked="" type="checkbox"/> <u>0.01</u>	
		<u>0.8</u>	<u>X.4.6.3.1.6</u>			<u>(0.0 + E mix)°</u>	
		<u>0.9</u>	<u>B.0.0.2.4</u>			<u>1°</u>	
		<u>1.0</u>	<u>V.0.0.3.2</u>				
		<u>1.1</u>	<u>T.0.2.2.6</u>			<input checked="" type="checkbox"/> <u>→ NEG. ARG. ARCCOSINE</u>	
		<u>1.2</u>	<u>V.0.2.1.4</u>			<u>→ POS. ARG. ARCCOSINE</u>	
		<u>1.3</u>					
		<u>1.4</u>	<u>A.0.0.4.3</u>				
		<u>1.5</u>	<u>V.0.0.4.4</u>			<input checked="" type="checkbox"/>	
		<u>1.6</u>	<u>X.4.6.3.2.4</u>				
		<u>1.7</u>	<u>B.0.0.3.9</u>			<u>90°</u>	<u>(π/2 - ARCSINE)</u>
		<u>1.8</u>	<u>X.5.6.3.2.4</u>				
		<u>1.9</u>	<u>V.0.0.2.1</u>			<input checked="" type="checkbox"/> <u>→ EXIT</u>	
<u>0.0000.06</u>		<u>2.0</u>					
		<u>2.1</u>	<u>168.0000.00.0</u>			<u>90°</u>	
		<u>2.2</u>	<u>64.8.1.0.3.1</u>			<u>0.01</u>	<u>1.5707963050</u>
		<u>2.3</u>				<input checked="" type="checkbox"/>	
		<u>2.4</u>					
		<u>2.5</u>					
		<u>2.6</u>	<u>X.6.3.1.2</u>				
		<u>2.7</u>	<u>X.5.6.3.1.2</u>			<input checked="" type="checkbox"/> <u>100% 1°</u>	
		<u>2.8</u>	<u>A.0.0.4.3</u>				
		<u>2.9</u>	<u>V.0.0.4.4</u>				
		<u>3.0</u>	<u>A.0.2.0.2</u>			<u>90°</u>	<u>(π/2 + ARCSINE)</u>
		<u>3.1</u>	<u>V.0.0.2.1</u>			<input checked="" type="checkbox"/> <u>→ EXIT</u>	

Conditional Stop Code



Carriage Return



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Job No. \_\_\_\_\_ Prog. No. 21.0 Prep. by M.K. Ck'd. by \_\_\_\_\_ Date 3-16-57

Problem DECIMAL MEMORY PRINTOUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		02.0.0	V0.1.0.6			
0.00.00.04		0.1	L0.0.0.0.0.0		-6 <sup>@4</sup> (0329)	
		0.2	L		MODIFIER	
		0.3	L		<input checked="" type="checkbox"/> ADDRESS OF NO. TO PRINT	
		0.4	L		LF	
		0.5	B0.1.5.5		8 <sup>@29</sup>	
		0.6	C0.1.3.5		PRINT STROKE CTR.	
		0.7	I0.0.7.0.2.2.6	<input checked="" type="checkbox"/>		→ Hex PRINT
		0.8	B0.1.0.5		10 <sup>@31</sup>	HERE: DEC. PRINT
		0.9	C0.3.3.8			
		1.0	B0.3.0.4		10 <sup>@31</sup>	
		1.1	C0.3.0.6	<input checked="" type="checkbox"/>		
		1.2	B0.2.3.0		E 0307	
		1.3	V0.2.1.5			
		1.4	L		WORDS/LINE CTR.	
		1.5	C0.2.4.9	<input checked="" type="checkbox"/>		
		1.6	B0.2.5.2		No. To PRINT	
		1.7	T0.2.2.1			→ Neg. No.
		1.8	XP.1.1.5.4		"PLUS"	
		1.9	V0.2.6.1	<input checked="" type="checkbox"/>		
		2.0	V0.2.5.0		(0226)	
		2.1	XP.0.7.0.0		"MINUS"	
		2.2	C0.3.5.8		0 → ACC.	
		2.3	J0.2.5.2	<input checked="" type="checkbox"/>		-NO. TO PRINT
		2.4	V0.2.6.1			
0.00.00.00.1		2.5	I0.0.0.2		BI(LN)H <sup>@37</sup>	
		2.6	B0.2.2.0		V0250	
		2.7	C0.2.4.9	<input checked="" type="checkbox"/>		
		2.8	V0.2.3.1			
		2.9	XZ.1.0.0.0		10 <sup>@2</sup> (0043)(0154)(0157)	
		3.0	E0.3.0.7		(0312)	
		3.1	B0.3.0.3	<input checked="" type="checkbox"/>		1 <sup>@17</sup>

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 21.0 Prep. by M.K. Ck'd. by \_\_\_\_\_ Date 3-16-57

Problem DECIMAL MEMORY PRINTOUT Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.2.3.2	C0.3.3.8			
		3.3	B0.3.5.6		1 <sup>@27</sup>	
		3.4	C0.3.0.6			
		3.5	V0.3.4.7	<input checked="" type="checkbox"/>		
		3.6	B0.1.0.8		L(LW)	
		3.7	A0.3.1.6		1 <sup>@29</sup>	
		3.8	V0.1.0.8			
		3.9	S0.2.2.5	<input checked="" type="checkbox"/>		L(LF)
		4.0	T0.2.4.2			
		4.1	V0.1.4.9			→ FINISHED WITH MP
		4.2	B0.2.1.4		WORDS/LINE CTR.	
		4.3	V0.2.4.4	<input checked="" type="checkbox"/>		
		4.4	S0.3.1.6		1 <sup>@29</sup>	
		4.5	T0.0.2.6			→ FINISHED WITH LINE
		4.6	C0.2.1.4			
		4.7	V0.1.0.7	<input checked="" type="checkbox"/>		
		4.8	H0.3.0.6		10 <sup>@31</sup> & 1 <sup>@27</sup>	
		4.9	J		E 0307 & V0.2.5.0	
		5.0	A0.3.0.8		No. To PRINT	
		5.1	V0.3.0.9	<input checked="" type="checkbox"/>		
		5.2	L		J	TEMP.(0109)(0116)(0123)(0209)(030
		5.3	XZ.6.0.0.0		(0310)	
		5.4	L		J	TEMP.(0004)(0011)
		5.5	PL		J	<input checked="" type="checkbox"/> PRINT DEC.(OR HEX) CHARACTER
		5.6	C0.1.3.5		PRINT STROKE CTR.	
		5.7	B0.3.0.8		No. To PRINT	
		5.8	V0.2.4.8			
		5.9	XZ.6.3.0.0	<input checked="" type="checkbox"/>		(0037)
		6.0	XZ.3.0.0.0		30 <sup>@23</sup> (0038)	
		6.1	XZ.0.0.0.0		DELAY	
		6.2	XP.2.3.3.4		"DECIMAL POINT"	
		6.3	V0.2.5.0	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return



Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Contents of Address	Notes
<u>1000</u>						
<u>1000</u>	<input checked="" type="checkbox"/>					
		<u>0.0.0.0</u>	<u>B0.7.32</u>		<u>(A) =</u>	
		<u>0.1</u>	<u>H0.7.49</u>		<u>CoR</u>	<u>SET CoR +</u>
		<u>0.2</u>	<u>H0.1.44</u>		<u>CASE</u>	<u>SET LOWER CASE</u>
		<u>0.3</u>	<u>R0.0.59</u>			
		<u>0.4</u>	<u>U0.0.42</u>		<u>2 PRINT</u>	<u>PRINT (A) =</u>
		<u>0.5</u>	<u>X P0.0.00</u>			
		<u>0.6</u>	<u>X I0.0.00</u>			<u>READ (A)0</u>
		<u>0.7</u>	<u>H0.1.47</u>		<u>(A)H</u>	<u>STORE (A)H</u>
		<u>0.8</u>	<u>M0.7.35</u>		<u>1@30</u>	} <u>STORE (A)H</u>
		<u>0.9</u>	<u>E0.7.35</u>		<u>1@30</u>	
		<u>1.0</u>	<u>C0.1.48</u>		<u>(A)L</u>	
		<u>1.1</u>	<u>B0.7.30</u>		<u>D:H =</u>	
		<u>1.2</u>	<u>R0.0.59</u>			
		<u>1.3</u>	<u>U0.0.44</u>		<u>2 PRINT</u>	<u>PRINT D:H =</u>
		<u>1.4</u>	<u>X P0.0.00</u>			
		<u>1.5</u>	<u>X I0.0.00</u>			<u>READ DH</u>
		<u>1.6</u>	<u>E0.7.36</u>		<u>1@28</u>	} <u>STORE DH - FOR DEC</u>
		<u>1.7</u>	<u>S0.7.36</u>		<u>1@28</u>	
		<u>1.8</u>	<u>C0.7.33</u>		<u>DH</u>	
		<u>1.9</u>	<u>B0.7.20</u>		<u>A =</u>	
		<u>2.0</u>	<u>R0.0.59</u>			
		<u>2.1</u>	<u>U0.0.44</u>		<u>2 PRINT</u>	<u>PRINT A =</u>
		<u>2.2</u>	<u>R0.1.05</u>			
		<u>2.3</u>	<u>U0.0.60</u>		<u>INPUT</u>	<u>READ A</u>
		<u>2.4</u>	<u>C0.1.51</u>		<u>A</u>	<u>STORE A</u>
		<u>2.5</u>	<u>B0.7.21</u>		<u>B =</u>	
		<u>2.6</u>	<u>R0.0.59</u>			
		<u>2.7</u>	<u>U0.0.44</u>		<u>2 PRINT</u>	<u>PRINT B =</u>
		<u>2.8</u>	<u>R0.1.05</u>			
		<u>2.9</u>	<u>U0.0.60</u>		<u>INPUT</u>	<u>READ B</u>
		<u>3.0</u>	<u>S0.1.51</u>		<u>A</u>	
		<u>3.1</u>	<u>A0.7.38</u>		<u>1@29</u>	

Conditional Stop Code  Carriage Return

Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		<u>0.0.3.2</u>	<u>C0.1.52</u>		<u>B-A+1</u>	<u>STORE B-A+1</u>
		<u>3.3</u>	<u>B0.7.22</u>		<u>C =</u>	
		<u>3.4</u>	<u>R0.0.59</u>			
		<u>3.5</u>	<u>U0.0.44</u>		<u>2 PRINT</u>	<u>PRINT C =</u>
		<u>3.6</u>	<u>R0.1.05</u>			
		<u>3.7</u>	<u>U0.0.60</u>		<u>INPUT</u>	<u>READ C</u>
		<u>3.8</u>	<u>X P1.6.00</u>		<u>C.R.</u>	
		<u>3.9</u>	<u>H0.1.53</u>		<u>C</u>	<u>STORE Co.</u>
		<u>4.0</u>	<u>X Z0.0.00</u>			
		<u>4.1</u>	<u>U0.6.35</u>		<u>NEXT + 3</u>	<u>JUMP TO BEGIN MP</u>
		<u>4.2</u>	<u>X P1.6.00</u>		<u>C.R.</u>	<u>HERE FOR 2 PRINT</u>
		<u>4.3</u>	<u>X I0.0.00</u>			
		<u>4.4</u>	<u>X P1.6.00</u>		<u>C.R.</u>	
		<u>4.5</u>	<u>X Z0.0.00</u>			
		<u>4.6</u>	<u>X P08.00</u>		<u>U.C.</u>	
		<u>4.7</u>	<u>X Z0.0.00</u>			
		<u>4.8</u>	<u>H0.1.42</u>		<u>T</u>	
		<u>4.9</u>	<u>Y0.0.52</u>			<u>FORM PRINTER</u>
		<u>5.0</u>	<u>S0.7.37</u>		<u>1@23</u>	
		<u>5.1</u>	<u>T0.0.56</u>			<u>FINISHED?</u>
		<u>5.2</u>	<u>X P0.0.00</u>			<u>PRINT ICH.</u>
		<u>5.3</u>	<u>B0.1.42</u>		<u>T</u>	
		<u>5.4</u>	<u>M0.1.46</u>		<u>1@6</u>	<u>SHIFT TO NEXT CH</u>
		<u>5.5</u>	<u>U0.0.48</u>			<u>REPEAT</u>
		<u>5.6</u>	<u>X P0.4.00</u>		<u>2.C</u>	<u>HERE WHEN FINISHED</u>
		<u>5.7</u>	<u>X Z0.0.00</u>			
		<u>5.8</u>	<u>C0.1.42</u>		<u>T</u>	<u>CLEAR ACCUM.</u>
		<u>5.9</u>	<u>X U0.0.00</u>			<u>EXIT</u>
		<u>6.0</u>	<u>X P0.0.00</u>			<u>HERE TO INPUT ADDRESS</u>
		<u>6.1</u>	<u>X I0.0.00</u>			
		<u>6.2</u>	<u>H0.1.42</u>		<u>T1</u>	<u>STORE IF HEX.</u>
		<u>6.3</u>	<u>M0.7.38</u>		<u>1@29</u>	<u>SHIFT</u>

Conditional Stop Code  Carriage Return





Job No. \_\_\_\_\_ Prog. No. 231 Prep. by WILKINSON Ck'd. by \_\_\_\_\_ Date 12/18/57

Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0200	B0145		(C)	
		01	R0212			} PRINT INSTRUCTION
		02	V0241			
		03	XV0000	<input checked="" type="checkbox"/>		→ EXIT
		04	C0142		T	HERE TO PRINT ADDRESS
		05	B0733		OH	
		06	T0213			→ DECIMAL
		07	B0142	<input checked="" type="checkbox"/>	T	} SHIFT TO HIGH ORDER
		08	N0753		1@15	
		09	R0309			} PRINT 4CH.
		10	V0262			
		11	XZ0000	<input checked="" type="checkbox"/>		DELAY
		12	XV0000			→ EXIT
		13	B0142		T	HERE FOR DEC. ADDR.
		14	R0123			} PRINT DEC. ADDR.
		15	V0117	<input checked="" type="checkbox"/>		
		16	V0212			→ EXIT
		17	XR0300		SP.	HERE TO PRINT (A)
		18	XZ0000			
		19	XR0300	<input checked="" type="checkbox"/>	SP	
		20	B0147		(AH)	
		21	R0309			} PRINT FIRST 4CH.
		22	V0262			
		23	B0147	<input checked="" type="checkbox"/>	(AH)	
		24	N0735		1@30	} RESTORE BIT @31
		25	R0148		(AH)	
		26	N0754		1@16	SHIFT TO HIGH ORDER
		27	R0309	<input checked="" type="checkbox"/>		} PRINT SECOND 4CH.
		28	V0262			
		29	XZ0000			
		30	XV0000			→ EXIT
		31	XR0300	<input checked="" type="checkbox"/>	SP.	HERE TO PRINT (M)

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 231 Prep. by WILKINSON Ck'd. by \_\_\_\_\_ Date 12/18/57

Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0232	XZ0000			
		33	XP0300		SP.	
		34	B0755		7@23	} SET P3C FOR RCH.
		35	C0750	<input checked="" type="checkbox"/>	T3	
		36	XB0000		(M)	
		37	XZ0000			
		38	R0309			} PRINT IN HEX
		39	V0313	<input checked="" type="checkbox"/>		
		40	V0536			→ EXIT
		41	XP0300		SP.	HERE TO PRINT INSTRUCTION
		42	H0142		T	
		43	M0146	<input checked="" type="checkbox"/>	1@6	SHIFT Op. TO PRINT
		44	E0739		3J00	TRIM OP.
		45	XZ0024			DELAY
		46	A0737		1@23	TO GIVE P0100
		47	Y0260	<input checked="" type="checkbox"/>	P0000	FORM PRINTER
		48	B0142		T	
		49	T0252			→ NEGATIVE INSTR.
		50	XR0300		SP.	
		51	V0259	<input checked="" type="checkbox"/>		→ PRINT OP.
		52	B0150		OP ONLY	
		53	S0756		6@15	
		54	T0250			→ Op. < T
		55	S0753	<input checked="" type="checkbox"/>	1@15	
		56	T0258			→ Op. = T
		57	V0250			→ Op. > T
		58	XP0700		-	PRINT - FOR - T
		59	XZ0000	<input checked="" type="checkbox"/>		DELAY
		60	XA0000			PRINT OP.
		61	V0205		ADDRESS PRINTED	EXIT AT 0212
		62	C0142		T	HERE TO PRINT 4 HEX CH.
		63	B0757	<input checked="" type="checkbox"/>	3@23	

Conditional Stop Code



Carriage Return







Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		0.6.0.0	B.0.1.5.0		OP ONLY	
		0.1	S.0.7.6.2		3 @ 15	
		0.2	T.0.8.1.2		Do Y	→ Y EXIT
		0.3	U.0.3.4.7	<input checked="" type="checkbox"/>	Do R	→ R EXIT
		0.4	B.0.1.4.1		MOR	HERE FOR RY COR-
		0.5	T.0.6.0.0			→ MOR - EXIT
		0.6	R.0.2.0.3			{ PRINT C AND (C)
		0.7	U.0.1.5.9	<input checked="" type="checkbox"/>		
		0.8	R.0.2.3.0			{ PRINT (A)
		0.9	U.0.2.1.7			
		1.0	X.Z.1.6.0.0			
		1.1	U.0.5.6.1	<input checked="" type="checkbox"/>	Do	EXIT
		1.2	Z.0.6.1.3			USED AT 0561
		1.3	B.0.7.4.9		COR	HERE FOR YR COR-MOR+
		1.4	T.0.6.1.9			COR
		1.5	X.B.0.0.0.0	<input checked="" type="checkbox"/>		
		1.6	R.0.2.1.2			{ PRINT (M) I
		1.7	U.0.2.4.1			
		1.8	U.0.6.3.2		NEXT	EXIT
		1.9	B.0.1.4.1	<input checked="" type="checkbox"/>	MOR	HERE FROM 0614
		2.0	T.0.6.3.2		NEXT	MOR - EXIT
		2.1	U.0.6.1.5			PRINT (M) I FOR MOR+
		2.2	B.0.7.4.9		COR	HERE FOR U
		2.3	T.0.6.2.6	<input checked="" type="checkbox"/>		→ COR -
		2.4	X.Z.3.2.0.0			
		2.5	U.0.3.3.3		Do U	
		2.6	B.0.1.4.1		MOR	HERE FOR COR -
		2.7	T.0.3.3.3	<input checked="" type="checkbox"/>	Do U	MOR - EXIT
		2.8	R.0.2.0.3			{ PRINT C AND (C)
		2.9	U.0.1.5.9			
		3.0	X.Z.1.6.0.0			
		3.1	U.0.3.3.3	<input checked="" type="checkbox"/>	Do U	EXIT

Conditional Stop Code  Carriage Return

Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		0.6.3.2	B.0.1.5.3		C	HERE FOR NEXT
		3.3	A.0.7.3.8		1 @ 29	
		3.4	H.0.1.5.3		C	
		3.5	S.0.1.5.1	<input checked="" type="checkbox"/>	A	
		3.6	T.0.6.3.9			→ C < A
		3.7	S.0.1.5.2		B - A + 1	
		3.8	T.0.7.0.5			→ A ≤ C ≤ B
		3.9	B.0.7.4.9	<input checked="" type="checkbox"/>	COR	
		4.0	T.0.6.4.5			→ COR -
		4.1	X.P.1.6.0.0		CR.	
		4.2	B.0.4.0.1		NEG. WD.	
		4.3	C.0.7.4.9	<input checked="" type="checkbox"/>	COR	SET COR -
		4.4	X.Z.0.0.0.0			
		4.5	B.0.1.5.3		C	
		4.6	Y.0.6.4.7		R	
		4.7	X.B.0.0.0.0	<input checked="" type="checkbox"/>	NEXT INSTR.	
		4.8	H.0.1.4.5		(C)	STORE (C)
		4.9	Y.0.2.3.6			{ STORE M
		5.0	Y.0.6.1.5			
		5.1	E.0.7.6.3	<input checked="" type="checkbox"/>	W @ 15	TRIM OP.
		5.2	C.0.1.5.0		OP. ONLY	STORE OP. ONLY
		5.3	B.0.1.4.5		(C)	
		5.4	E.0.7.4.1		3WWJ	TRIM M
		5.5	S.0.1.5.1	<input checked="" type="checkbox"/>	A	
		5.6	T.0.6.6.0			→ M < A
		5.7	S.0.1.5.2		B - A + 1	
		5.8	T.0.7.1.6			→ A ≤ M ≤ B
		5.9	B.0.4.0.1	<input checked="" type="checkbox"/>	NEG. WD.	
		6.0	C.0.1.4.1		MOR	SET MOR -
		6.1	B.0.7.1.9		Z0632	
		6.2	Y.0.8.1.7			SET EXITS
		6.3	Y.0.3.5.2	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		07.0.0	B.0.7.4.9		COR	
		0.1	T.0.5.1.0		ANALYZE OP.	-COR - EXIT
		0.2	R.0.2.0.3			} PRINT C AND (B)
		0.3	U.0.1.5.9	<input checked="" type="checkbox"/>		
		0.4	U.0.5.1.0		ANALYZE OP.	→ COR + EXIT
		0.5	B.0.7.4.9		COR	
		0.6	T.0.7.0.8			} TEST FOR RE ENTRY
		0.7	U.0.6.4.5	<input checked="" type="checkbox"/>		
		0.8	B.0.7.3.2		(A) =	
		0.9	R.0.0.5.9			} PRINT (A) =
		1.0	U.0.0.4.4			
		1.1	R.0.2.3.0	<input checked="" type="checkbox"/>		} PRINT (A)
		1.2	U.0.2.2.0			
		1.3	B.0.7.1.3		+ WD.	
		1.4	C.0.7.4.9		COR	} SET COR +
		1.5	U.0.6.4.5	<input checked="" type="checkbox"/>		
		1.6	C.0.1.4.1		MOR	
		1.7	C.0.1.4.1		MOR	} SET MOR +
		1.8	U.0.6.6.1			
		1.9	Z.0.6.3.2	<input checked="" type="checkbox"/>		USED AT 0661
7.0.0.0.0.0.4.4.1		2.0	Z.W.9.0.0		A =	
		2.1	Z.J.5.0.0		B =	
		2.2	Z.W.5.0.0		C =	
		2.3	V.7.8.7.K.0.0	<input checked="" type="checkbox"/>	SP.	
		2.4	S.W.5.5.J.6.0.0		e.c.	
		2.5	S.W.5.5.Q.9.0.0		u.c.	
		2.6	S.J.6.8.W.5.0.0		COL.	
		2.7	S.J.K.5.W.5.0.0	<input checked="" type="checkbox"/>	C.R.	
		2.8	S.W.K.5.J.5.0.0		B.S.	
		2.9	S.J.5.Q.6.K.0.0		TAB.	
		3.0	Z.W.1.3.K.5.0.0		D:H =	
		3.1	Z.0.0.0	<input checked="" type="checkbox"/>		1C-18 on 1

Conditional Stop Code  Carriage Return

Royal McBee Corporation

Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		07.3.2	Z.J.2.Q.6.6.0.0			(A) =
		3.3				dh
		3.4		1.0		1 @ 27
		3.5		2	<input checked="" type="checkbox"/>	1 @ 30
		3.6		8		1 @ 28
		3.7		1.0.0		1 @ 23
		3.8		4		1 @ 29
		3.9	3.J.0.0	<input checked="" type="checkbox"/>		
		4.0	W.J.			
		4.1	3.W.W.J.			
		4.2	1.W.K.W.J.			
		4.3	1.J.1.J.0	<input checked="" type="checkbox"/>		
		4.4	K.0.0.0.0.0.0			
		4.5	W.W.0.0			
		4.6	F.0.0.0.0.0.0			
		4.7		4.0	<input checked="" type="checkbox"/>	1 @ 25
		4.8	3.W.0.0			
		4.9				COR
		5.0				PSC
		5.1			<input checked="" type="checkbox"/>	
		5.2				TEMPO
		5.3	1.0.0.0.0			1 @ 15
		5.4	8.0.0.0			1 @ 16
		5.5	7.0.0	<input checked="" type="checkbox"/>		7 @ 23
		5.6	6.0.0.0			6 @ 15
		5.7	3.0.0			3 @ 23
		5.8	4.0.0.0.0.0.0			1 @ 1
		5.9	4.0.0	<input checked="" type="checkbox"/>		1 @ 21
		6.0	8.0.0.0.0.0			1 @ 8
		6.1	2.0.0.0.0			1 @ 14
		6.2	3.0.0.0.0			3 @ 15
		6.3	W.0.0.0.0	<input checked="" type="checkbox"/>		W @ 15

Conditional Stop Code  Carriage Return

Royal McBee Corporation

Job No. \_\_\_\_\_ Prog. No. 23.1 Prep. by WILKINSON Ch'd. by \_\_\_\_\_ Date 12-18-57

Problem UNIV. OF MICH. FIXED POINT TRACE Track \_\_\_\_\_

Program Input Codes	STOP	Location	Instruction Op. Address	STOP	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		08.0.0	B.0.1.4.8		(A)H	HERE TO DO N
		0.1	S.0.7.3.5		1 @ 30	
		0.2	T.0.8.6.0			Ex: T FOR No BIT @ 31
		0.3	R.0.8.1.7	<input checked="" type="checkbox"/>		} Do TO AH
		0.4	U.0.8.1.2			
		0.5	B.0.1.4.5		(C)	
		0.6	Y.0.8.0.7			
		0.7	X.B.0.0.0.0	<input checked="" type="checkbox"/>	(M)	DO TO AH
		0.8	A.0.1.4.7		(A)H	
		0.9	C.0.1.4.7		(A)H	
		1.0	C.0.1.4.8		(A)H	
		1.1	U.0.6.3.2	<input checked="" type="checkbox"/>	NEXT	EXIT
		1.2	B.0.1.4.5		(C)	HERE TO BYDNMEHCAS
		1.3	C.0.8.1.5			
		1.4	B.0.1.4.7		(A)H	
		1.5	X.Z.0.0.0.0	<input checked="" type="checkbox"/>		CURRENT INSTR.
		1.6	C.0.1.4.7		(A)H	
		1.7	U.0.6.3.2		NEXT	EXIT
		1.8	B.0.7.4.9		COR	HERE FOR N
		1.9	T.0.8.0.0	<input checked="" type="checkbox"/>	DO	→ COR -
		2.0	R.0.2.4.0			} PRINT(M)N
		2.1	U.0.2.3.1			
		2.2	X.Z.0.0.0.0			DELAY
		2.3	X.Z.3.2.0.0	<input checked="" type="checkbox"/>		
		2.4	R.0.8.1.1			} DO
		2.5	U.0.8.0.0			
		2.6	R.0.2.3.0			} PRINT(A)
		2.7	U.0.2.1.7	<input checked="" type="checkbox"/>		
		2.8	B.0.8.3.0		U0632	} RESET EXIT
		2.9	Y.0.8.1.1			
		3.0	U.0.6.3.2			EXIT
		3.1	B.0.1.4.8	<input checked="" type="checkbox"/>	(A)H	HERE FOR D

Conditional Stop Code  Carriage Return

Royal McBee Corporation

PREPARED FOR: \_\_\_\_\_ PAGE OF 18 18

JOB NO. 0047 PROGRAM NO. 23.1 PROGRAM PREPARED BY: WILKINSON PROGRAM CHECKED BY: \_\_\_\_\_ DATE 12/20/57

PROBLEM: Univ. of Michigan Fixed Point Trace TRACK \_\_\_\_\_

PROGRAM INPUT CODES	STOP	LOCATION	INSTRUCTION		STOP	CONTENTS OF ADDRESS	NOTES
			OPERATION	ADDRESS			
	<input checked="" type="checkbox"/>						
		0.9.3.2	S.0.7.3.5			1 @ 30	
		3.3	T.0.5.3.2			DO	Exit for No Bit @ 31
		3.4	B.0.7.4.9			COR	
		3.5	T.0.8.4.0		<input checked="" type="checkbox"/>		→ Cor -
		3.6	R.0.2.4.0				} PRINT (Min)
		3.7	U.0.2.3.1				
		3.8	X.Z.0.0.0.0				Delay
		3.9	X.Z.3.2.0.0		<input checked="" type="checkbox"/>		
		4.0	R.0.8.1.7				} DO
		4.1	U.0.8.1.2				
		4.2	B.0.1.4.5			(C)	
		4.3	C.0.8.4.5		<input checked="" type="checkbox"/>		
		4.4	B.0.7.3.5			1 @ 30	
		4.5	X.Z.0.0.0.0				Current Inst.
		4.6	M.0.7.5.8			1 @ 1	Shift To P31
		4.7	A.0.1.4.7		<input checked="" type="checkbox"/>	(A)H	Restore Bit @ 31
		4.8	C.0.1.4.7				
		4.9	C.0.1.4.8			(A)L	Set (A)L TO 0
		5.0	B.0.7.4.9			COR	
		5.1	T.0.6.3.2		<input checked="" type="checkbox"/>	Next	→ Cor -
		5.2	R.0.2.3.0				} PRINT (A)
		5.3	U.0.2.1.7				
		5.4	U.0.6.3.2			Next	Exit
		5.5	X.P.0.3.0.0		<input checked="" type="checkbox"/>		Here for I & Cor t
		5.6	X.Z.0.0.0.0				
		5.7	X.P.0.3.0.0				
		5.8	X.Z.0.0.0.0				
		5.9	U.0.3.2.2		<input checked="" type="checkbox"/>		→ DO I
		6.0	B.0.7.4.9			COR	Here from 0802
		6.1	T.0.8.1.2				→ Cor -
		6.2	U.0.5.3.8				→ Cor t
		6.3	Z.0.7.2.3		<input checked="" type="checkbox"/>		

FORM LP-12

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Royal McBee Corporation  
DATA PROCESSING DIV.  
PORT CHESTER, NEW YORK

CARRIAGE RETURN  
= CONDITIONAL STOP CODE

NOTES

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NOTES

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Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		0 0	B 0 0 2 2		A 0 0 3 4	ENTER TAG
		0 1	U 0 0 0 5			
		0 2	H 0 0 4 5			
		0 3	X T [LF+806]	<input checked="" type="checkbox"/>	EXECUTE - T	
		0 4	X U [LF+002]		EXECUTE ALL OTHERS	
		0 5	C 0 0 5 5			
		0 6	U 0 0 0 7			
		0 7	B 0 0 5 0	<input checked="" type="checkbox"/>	Z 0 0 5 9	
		0 8	X Y [LF+023]			} SET UP 24.0 FOR TRACING
		0 9	B 0 0 2 3		U 0 0 2	
		1 0	X C [LF+001]			
		1 1	X P 0 0 4 7	<input checked="" type="checkbox"/>	READ LOCATION	
		1 2	X I 0 0 0 0			
		1 3	T 0 1 0 6		EXIT AFTER TAG OR DETAG	
		1 4	N 0 1 5 0		1 @ 29	
		1 5	X H 6 3 5 8	<input checked="" type="checkbox"/>	N I (TEMP)	
		1 6	U 0 1 2 8		→ BIN	
		1 7	Y 0 0 5 3			
		1 8	U 0 0 2 0			
		1 9	2 0 0 0 0 0 0 0	<input checked="" type="checkbox"/>	1 @ 2	
		2 0	Y 0 0 5 6			
		2 1	U 0 0 5 3			
		2 2	A 0 0 3 4		1 @ 2	
		2 3	U 0 0 0 2	<input checked="" type="checkbox"/>		
		2 4	X Z 1 0 0 0			
		2 5	B 0 0 5 1		ENTER, DETAG	
		2 6	C 0 0 5 5			
		2 7	B 0 0 0 3	<input checked="" type="checkbox"/>		
		2 8	U 0 0 2 9			
		2 9	X C [LF+01]		RESET 24.0	
		3 0	B 0 0 5 2			
		3 1	X C [LF+023]	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
		3 2	U 0 0 1 1			
		3 3	K W W W W W W W		MASK	
		3 4	2 0 0 0 0 0 0 0		1 @ 2	
		3 5	X B [LF]	<input checked="" type="checkbox"/>		
		3 6	S 0 0 5 8		1 @ 29	
		3 7	X Y [LF]			
		3 8	X P 1 6 1 7		C.R.	
		3 9	R 0 1 6 0	<input checked="" type="checkbox"/>	→ PRINT ADD- R 0 1 6 0	
		4 0	U 0 1 3 1		DELAY U 0 1 3 1	
		4 1	U 0 1 1 4		TAB U 0 1 1 4	
		4 2	3 0 0 0 0 0 0 5			
		4 3	3 J 3 J 3 J 0	<input checked="" type="checkbox"/>		
		4 4	K 0 0 0 0 0 0 0 0		6 @ 4	
		4 5	[ ]		TEMP INST	
		4 6	2 0 0 0 0 0 0 0		MASK	
		4 7	X B [LF+305]	<input checked="" type="checkbox"/>	F.P. ACC.	
		4 8	X Z 1 0 3 2		DELAY	
		4 9	X U [LF+708]		PRINT F.P. ACC.	
		5 0	Z 0 0 5 9			
		5 1	U 0 0 5 6	<input checked="" type="checkbox"/>		
		5 2	X V [LF]			
		5 3	B [ ]			
		5 4	E 0 0 3 3			
		5 5	[ ]	<input checked="" type="checkbox"/>	A 0 0 3 4 OR U 0 0 5 6	
		5 6	C [ ]			
		5 7	U 0 0 1 1			
		5 8	X Z 0 0 0 1		1 @ 29	
		5 9	B 0 0 4 5	<input checked="" type="checkbox"/>	CHECK FOR TAG	
		6 0	E 0 0 4 6			
		6 1	S 0 0 1 9			
		6 2	X T [LF]		NO TRACE	
		6 3	U 0 0 3 5	<input checked="" type="checkbox"/>	TRACE	

Conditional Stop Code



Carriage Return

Royal McBee Corporation



Job No. \_\_\_\_\_ Prog. No. 240 Prep. by MK Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
5000 (L <sub>0</sub> )						
7000 (L <sub>0</sub> )	<input checked="" type="checkbox"/>					
		0000	BL J			
		01	T0806			→ TRANSFER CONTROL
		02	Y0024			
		03	M0332	<input checked="" type="checkbox"/>	1@14	op @ 29
		04	A0040		V0049	L <sub>0</sub> OF TRANSFER
		05	Y0048			
		06	B0135		XZ4213	
		07	V0007	<input checked="" type="checkbox"/>		
		08				
		09	L0024			DROP CO. BITS
		10	J0460		1@29	
		11	V0078	<input checked="" type="checkbox"/>		
10000007		12	2000000		1@6	
		13	40		1@25	
		14	20000000		1@2	
		15	3.WWWW.WJ0	<input checked="" type="checkbox"/>	1@1-1@25	
		16	20000000		1@3	
		17	40000000		1@1	
		18	4		1@29	
		19	H0041	<input checked="" type="checkbox"/>	acc. char.	
		20	B0156		1@29	
		21	B0000			} MODIFY ADDRESS
		22	Y0000			
		23	V0000	<input checked="" type="checkbox"/>		
		24	BL J			
		25	XH6304			
		26	S0262		01000000	
		27	J0249	<input checked="" type="checkbox"/>	1@25	
		28	T0157			→ POS. EXP.
		29	S0315		1@25	
		30	XH6302			↳ FACTOR
		31	XE6303	<input checked="" type="checkbox"/>		EXP. @ 30

Conditional Stop Code



Carriage Return

Job No. \_\_\_\_\_ Prog. No. 240 Prep. by MK Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0032	XB6304			
		33	E0312		WWWWW	DROP EXP.
		34	XH6320			} FACTOR CHARACTER-15710
		35	XH6307	<input checked="" type="checkbox"/>		
		36	XH6308			
		37	VE J			
		38	S0303		1@13-1@25	
		39	V0251	<input checked="" type="checkbox"/>		
		40	V0049			Dummy Cover L <sub>0</sub> OF TRANSFER
		41	L J			ACC. CHAR.
		42	XB6307			
		43	H0458	<input checked="" type="checkbox"/>		
		44	H0159			
		45	H0260			
		46	H0361			
		47	V0019	<input checked="" type="checkbox"/>		
		48	VE J			
		49	V0701			→ Z
		50	V0149			B
		51	V0716	<input checked="" type="checkbox"/>		Y
		52	V0503			R
		53	V0540			I
		54	V0606			D
		55	V0552	<input checked="" type="checkbox"/>		N
		56	V0521			M
		57	V0656			P
		58	V0559			E
		59	V0648	<input checked="" type="checkbox"/>		U
		60	V0754			T
		61	V0850			H
		62	V0857			C
		63	V0107	<input checked="" type="checkbox"/>		A

Conditional Stop Code



Carriage Return

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Step	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
	01	00	T09.03		→ 5000	HERE FOR "5"
	01		R00.37		HERE: SumX	} No. → FACTOR
	02		V00.24			} STORAGE
	03		XC6.346		0 → acc.	
	04		V01.05			
	05		X56.320			COMPLEMENT FACTOR
	06		V05.10			
	07		T18.32		→ A0000	HERE FOR "A"
	08		R00.37		HERE: Axxxx	} No. → FACTOR
	09		V00.24			} STORAGE
	10		M01.60		1 @ 1	
	11		XH6.354			FACTOR @ 1
	12		T01.15			
	13		S02.63		1 @ 30	
	14		T00.20			→ FACTOR = 0
	15		R04.58			Acc. CHAR
	16		T01.19			
	17		S03.60		1 @ 30	
	18		T04.38			→ ACC. = 0 (Sum - FACTOR)
	19		B03.05			Acc. Exp. @ 30
	20		V01.23			
	21		XZ00.00			ADDRESS ACCUMULATOR
	22		V06.33			Dummy OPER.
	23		X56.302			FACTOR Exp. @ 30
	24		N03.60		1 @ 30	@ 29
	25		T01.61			→ FACTOR > Acc.
	26		S03.55			
	27		T04.36			→ FACTOR Exp. = Acc. Exp.
	28		A02.50		23 @ 29	
	29		V02.01			
	30					
	31		XB6.303			FACTOR Exp.

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Step	Location	Instruction Op. Address	Stop	Contents of Address	Notes
				<input checked="" type="checkbox"/>		
	01	32	V01.54			
	33		XZ00.01			1 @ 29
	34		XZ00.08			1 @ 26
	35		XZ6.363			MASK
	36		F04.22			Lo TABLE + 24
	37		M/L J			SHIFT FACTOR CHAR
	38		A02.60			Acc. CHAR.
	39		V02.33			→ NORMALIZE
	40		XZ6.363			MASK
	41		A03.06			1 @ 1 - 1 @ 24 - 1 @ 30
	42		T02.22			→ OVERFLOW
	43		S03.08			
	44		T00.38			→ NOT 13 ZEROS
	45		S03.03			1 @ 13 - 1 @ 25
	46		V03.20			
	47		XZ00.24			24 @ 29 + DELAY
	48		V00.00			
	49		T08.36			→ B0000 HERE FOR "B"
	50		B01.22			HERE Bxxxx
	51		Y00.37			
	52		V00.24			
	53					
	54		H03.05			Acc. Exp.
	55		V00.42			
	56		XZ00.01			1 @ 29
	57		A03.15			1 @ 25
	58		V00.30			
	59		E J			Acc. CHAR
	60		40000000			1 @ 1
	61		A01.47			24 @ 29
	62		T04.38			→ SHIFT 24 (Acc. = 0)
	63		XC6.335			

Conditional Stop Code



Carriage Return

Royal McBee Corporation

Problem FLOATING POINT INTERACTIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	STOP	Location	Instruction Op. Address	STOP	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0200	V0206			
		01	Y0137			
		02	S0338		Lo TABLE + 24	
		03	T0704	<input checked="" type="checkbox"/>		
		04	V0020		→ Factor = 0 (SHIFT 2.24)	
<u>1.0000001</u>		05	40000000			
		06	X56335			
		07	A0136	<input checked="" type="checkbox"/>	Lo TABLE + 24	
		08	Y0230			
		09	V0224			
		10	A0353		1 <sup>@</sup> 1-1 <sup>@</sup> 13	
		11	T0319	<input checked="" type="checkbox"/>	→ 13 LEADING ZEROS	
		12	A0248		1 <sup>@</sup> 13	
		13	V0251			
		14				
		15		<input checked="" type="checkbox"/>		
		16	A0359		1 <sup>@</sup> 6-1 <sup>@</sup> 30	
		17	T0325		→ LESS THAN 6 LEADING ZEROS	
		18	S0261		1 <sup>@</sup> 6-1 <sup>@</sup> 30	
		19	V0348	<input checked="" type="checkbox"/>		
<u>1.0000003</u>		20	20		1 <sup>@</sup> 26	
		21	40000000		1 <sup>@</sup> 1	
		22	S0301		1 <sup>@</sup> 1-1 <sup>@</sup> 25	
		23	V0239	<input checked="" type="checkbox"/>		
		24	X06303		FACTOR Exp	
		25	V0226			
		26	C0305		Acc. Exp.	
		27	V0229	<input checked="" type="checkbox"/>		
		28				
		29	B0458		Acc. CHAR.	
		30	M1		SHIFT Acc. CHAR.	
		31	V0232	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Problem FLOATING POINT INTERACTIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	STOP	Location	Instruction Op. Address	STOP	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0232	X06354		FACTOR CHAR.	
		33	T0900		→ NEG.	
		34	S0013		1 <sup>@</sup> 25	
		35	T0432	<input checked="" type="checkbox"/>	→ -0	
		36	S0015		1 <sup>@</sup> 1-1 <sup>@</sup> 25	
		37	T0210		→ NO OVERFLOW	
		38	A0160		1 <sup>@</sup> 1	
		39	X06304	<input checked="" type="checkbox"/>		
		40	B0305		Acc. Exp.	
		41	A0263		1 <sup>@</sup> 30	
		42	C0305			
		43	V0245	<input checked="" type="checkbox"/>		
		44	XZ0010			
		45	B0160		1 <sup>@</sup> 1	
		46	X06304			
		47	V0043	<input checked="" type="checkbox"/>		
		48	XZ0000		1 <sup>@</sup> 13	
		49	XZ0016		1 <sup>@</sup> 25	
		50	Z0363		Lo TABLE	
		51	T0216	<input checked="" type="checkbox"/>		
		52	S0316		1 <sup>@</sup> 6	
		53	T0347		→ 6 LEADING ZEROS	
		54	A0012		1 <sup>@</sup> 6	
		55	T0327	<input checked="" type="checkbox"/>	→ NEG.	
		56	S0014		1 <sup>@</sup> 2	
		57	T0444			
		58	F0014			
		59	V0043	<input checked="" type="checkbox"/>		
<u>1.0000023</u>		60	J		Acc. CHAR.	
		61	1.W.W.W.W.W.		1 <sup>@</sup> 6-1 <sup>@</sup> 30	
		62	70		MASK	
		63	2	<input checked="" type="checkbox"/>	1 <sup>@</sup> 30	

Conditional Stop Code



Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>				
		03.0.0	4.0.0.00.00.	1 <sup>@1</sup>	
		0.1	3.W.W.W.W.W.J.O.	1 <sup>@1-1</sup> 25	
		0.2	18.	12 <sup>@30</sup>	
		0.3	3.W.W.J.O.	<input checked="" type="checkbox"/> 1 <sup>@13-1</sup> 25	
		0.4			
		0.5	[ ]	Acc. Exp. <sup>@30</sup>	
		0.6	3.W.W.W.W.W.8.0.	1 <sup>@1-2</sup> 25	
		0.7	24.	<input checked="" type="checkbox"/>	
		0.8	3.W.W.00.00.	1 <sup>@1-1</sup> 13 (0143)	
		0.9	F.	5 <sup>@30</sup>	
		1.0	2.0.0.0.0.0.	1 <sup>@6</sup>	
		1.1		<input checked="" type="checkbox"/> 1 <sup>@30</sup>	
		1.2	W.W.W.W.W.W.8.0.	MASK	
		1.3	4.0.0.0.0.0.0.	1 <sup>@1</sup>	
		1.4	4.	1 <sup>@29</sup>	
		1.5	4.0.	<input checked="" type="checkbox"/> 1 <sup>@25</sup>	
		1.6	4.0.0.0.0.0.0.	1 <sup>@1</sup>	
		1.7	3.W.W.W.W.W.J.O.	1 <sup>@1-1</sup> 25	
		1.8			
		1.9	H.0.2.4.8.	<input checked="" type="checkbox"/> 1 <sup>@13</sup>	
		2.0	M.0.3.3.5.	1 <sup>@19</sup> SHIFT LEFT 12 BITS	
		2.1	X.H.6.3.0.7.		
		2.2	B.0.3.0.5.	Acc. Exp.	
		2.3	S.0.3.0.2.	<input checked="" type="checkbox"/> 12 <sup>@30</sup>	
		2.4	V.0.3.3.3.		
		2.5	S.0.2.6.1.	1 <sup>@6-1</sup> 30	
		2.6	V.0.3.2.7.		
		2.7	H.0.3.5.6.	<input checked="" type="checkbox"/> 1 <sup>@2-1</sup> 26	
		2.8	T.0.3.3.6.	→ LESS THAN 2 LEADING ZEROS	
		2.9	S.0.3.5.8.	1 <sup>@2-1</sup> 26	
		3.0	V.0.4.4.5.		
		3.1		<input checked="" type="checkbox"/>	

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>				
		03.3.2	X.Y.0.0.0.	1 <sup>@14</sup>	
		3.3	H.0.3.0.5.	Acc. Exp.	
		3.4	V.0.3.4.2.		
		3.5	X.Z.1.6.0.0.	<input checked="" type="checkbox"/> 1 <sup>@19</sup>	
		3.6	S.0.3.5.7.	1 <sup>@2-1</sup> 26	
		3.7	V.0.0.4.3.		
		3.8	T.0.4.2.2.	Lo + 24 TABLE	
		3.9		<input checked="" type="checkbox"/>	
		4.0	H.0.3.0.5.	Acc. Exp.	
		4.1	V.0.3.4.2.		
		4.2	X.H.6.3.0.7.		
		4.3	V.0.2.5.1.	<input checked="" type="checkbox"/>	
		4.4			
		4.5	S.0.3.1.7.	1 <sup>@1-1</sup> 25	
		4.6	V.0.6.2.0.		
		4.7	A.0.0.1.2.	<input checked="" type="checkbox"/> 1 <sup>@6</sup>	
		4.8	M.0.1.3.4.	1 <sup>@26</sup>	SHIFT LEFT 5 BITS
		4.9	X.H.6.3.0.7.		
		5.0	B.0.3.0.5.	Acc. Exp.	
		5.1	S.0.3.0.7.	<input checked="" type="checkbox"/> 5 <sup>@30</sup>	
		5.2	V.0.3.4.0.		
		5.3	3.W.W.J.O.0.0.	1 <sup>@1-1</sup> 13	
		5.4			
		5.5	4.	<input checked="" type="checkbox"/> 1 <sup>@27</sup>	
		5.6	1.W.W.W.W.W.0.	1 <sup>@2-1</sup> 26	
		5.7	2.	1 <sup>@30</sup>	
		5.8	1.W.W.W.W.W.0.	1 <sup>@2-1</sup> 26	
		5.9	1.W.W.W.W.W.0.	<input checked="" type="checkbox"/> 1 <sup>@6-1</sup> 30	
		6.0	2.		
		6.1	[ ]	Acc. PHAR.	
		6.2	7.W.W.W.W.W.0.	≈ 1 <sup>@0</sup>	START TABLE OF SHIFTS
		6.3	4.0.0.0.0.0.0.	<input checked="" type="checkbox"/> 1 <sup>@1</sup>	

Conditional Stop Code  Carriage Return

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		04.0.0	200.00.000			1 <sup>02</sup>	
		0.1	10.00.00.00			1 <sup>03</sup>	
		0.2	200.00.000			1 <sup>04</sup>	
		0.3	400.00.000		<input checked="" type="checkbox"/>	1 <sup>05</sup>	
		0.4	200.00.000			1 <sup>06</sup>	
		0.5	100.00.000			1 <sup>07</sup>	
		0.6	30.00.00.00			1 <sup>08</sup>	
		0.7	400.00.000		<input checked="" type="checkbox"/>	1 <sup>09</sup>	
		0.8	200.00.000			1 <sup>10</sup>	
		0.9	100.00.000			1 <sup>11</sup>	
		1.0	800.00.000			1 <sup>12</sup>	
		1.1	400.00.000		<input checked="" type="checkbox"/>	1 <sup>13</sup>	
		1.2	200.00.000			1 <sup>14</sup>	
		1.3	100.00.000			1 <sup>15</sup>	
		1.4	20.00.00.00			1 <sup>16</sup>	
		1.5	40.00.00.00		<input checked="" type="checkbox"/>	1 <sup>17</sup>	
		1.6	20.00.00.00			1 <sup>18</sup>	
		1.7	10.00.00.00			1 <sup>19</sup>	
		1.8	80.00.00.00			1 <sup>20</sup>	
		1.9	40.00.00.00		<input checked="" type="checkbox"/>	1 <sup>21</sup>	
		2.0	20.00.00.00			1 <sup>22</sup>	
		2.1	10.00.00.00			1 <sup>23</sup>	
		2.2	80.00.00.00			1 <sup>24</sup>	
		2.3	40.00.00.00		<input checked="" type="checkbox"/>	1 <sup>25</sup>	
		2.4	20.00.00.00			1 <sup>26</sup>	
		2.5	10.00.00.00			1 <sup>27</sup>	
		2.6	80.00.00.00			1 <sup>28</sup>	
		2.7	40.00.00.00		<input checked="" type="checkbox"/>	1 <sup>29</sup>	
		2.8	20.00.00.00			1 <sup>30</sup>	
		2.9	X.C.6.3.0.1			0 → Acc	
		3.0	X.C.6.3.0.7			0 → FACTOR	
		3.1	U.0.5.3.9		<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		0.4.3.2	X.C.6.3.0.4			0 → Acc.	
		3.3	C.0.3.0.5			0 → Acc. Exp.	
		3.4	U.0.0.4.3				
		3.5			<input checked="" type="checkbox"/>		
		3.6	B.0.4.5.8				
		3.7	U.0.2.3.2				
		3.8	X.B.6.3.0.3			FACTOR Exp.	
		3.9	U.0.4.4.0		<input checked="" type="checkbox"/>		
		4.0	H.0.3.0.5			Acc. Exp.	
		4.1	X.B.6.3.5.4			FACTOR CHAR.	
		4.2	U.0.0.4.3				
		4.3	U.0.6.4.5		<input checked="" type="checkbox"/>	Dummy Order	
		4.4	A.0.0.1.6			1 <sup>012</sup>	
		4.5	X.0.3.6.0			1 <sup>030</sup>	
		4.6	X.H.6.3.1.1				
		4.7	B.0.3.0.5		<input checked="" type="checkbox"/>	Acc. Exp.	
		4.8	S.0.2.6.3			1 <sup>030</sup>	
		4.9	H.0.3.0.5			Acc. Exp.	
		5.0	U.0.4.5.3				
		5.1			<input checked="" type="checkbox"/>		
		5.2	U.0.1.5.4			Dummy Order	
		5.3	X.B.6.3.1.1				
		5.4	U.0.2.5.5				
		5.5	2.0.0.0.0.1.0		<input checked="" type="checkbox"/>	1 <sup>02</sup> -1 <sup>026</sup>	
		5.6	W.W.W.W.W.W.0			-1 <sup>030</sup>	
		5.7	L.W.W.W.W.W.0			1 <sup>02</sup> -1 <sup>026</sup>	
		5.8	[			Acc. CHAR.	
		5.9	3.N.W.W.W.W.0		<input checked="" type="checkbox"/>	1 <sup>01</sup> -1 <sup>030</sup>	
		6.0	4			1 <sup>029</sup>	
		6.1	4.00.000.00			1 <sup>01</sup>	
		6.2	2.000.000.00			1 <sup>01</sup>	
		6.3	2.000000.00		<input checked="" type="checkbox"/>	1 <sup>02</sup>	

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 24.0 Prep. by MK Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.5.0.0	40		1 <sup>@</sup> 25	
		0.1	R.00.37			} NO. → FACTOR STORAGE
		0.2	V.00.24			
		0.3	M.05.32	<input checked="" type="checkbox"/>	M REG. CHAR.	
		0.4	T.05.12		→ NEG.	
		0.5	S.02.20		1 <sup>@</sup> 30	
		0.6	T.04.29		= 0	
		0.7	S.04.57	<input checked="" type="checkbox"/>	1 <sup>@</sup> 2 - 1 <sup>@</sup> 26	
		0.8	T.05.33		→ UNDERFLOW 1 BIT	
		0.9	V.05.26		→ NO. UNDERFLOW	
		1.0	L. . . . .		M. REG. EXP.	
		1.1		<input checked="" type="checkbox"/>		
		1.2	H.04.5.5		1 <sup>@</sup> 2 - 1 <sup>@</sup> 30	
		1.3	T.05.19		→ NO. UNDERFLOW	
		1.4	S.04.57		1 <sup>@</sup> 2 - 1 <sup>@</sup> 26	
		1.5	V.05.34	<input checked="" type="checkbox"/>		
		1.6	X.H.6.3.0.2			} FACTOR EXP.
		1.7	X.C.6.3.0.3			
		1.8	V.05.49			
		1.9	S.04.5.5	<input checked="" type="checkbox"/>	1 <sup>@</sup> 2 - 1 <sup>@</sup> 26	
		2.0	V.05.28			
		2.1	S.03.0.7		9 <sup>@</sup> 29	HERE FOR "M"
		2.2	T.08.23		→ M 0000	
		2.3	B.04.5.2	<input checked="" type="checkbox"/>	V.0154	HERE: Mxxxx
		2.4	Y.05.39			
		2.5	V.05.0.1			
		2.6	H.04.6.2		1 <sup>@</sup> 2	
		2.7	V.05.28	<input checked="" type="checkbox"/>		
		2.8	X.C.6.3.0.1			
		2.9	V.05.3.7			
3.0.0.0.0.0.0.3		3.0	4		1 <sup>@</sup> 29	
		3.1	3.2.4.3.W.6.F.6	<input checked="" type="checkbox"/>	7/4 <sup>@</sup> (FOR TAN-)	

Conditional Stop Code

Carriage Return

Job No. \_\_\_\_\_ Prog. No. 24.0 Prep. by MK Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.5.3.2	L. . . . .		M CHAR.	
		3.3	A.04.6.2		1 <sup>@</sup> 2	
		3.4	M.02.6.3		1 <sup>@</sup> 30	
		3.5	X.C.6.3.0.7	<input checked="" type="checkbox"/>		
		3.6	S.06.0.1		1 <sup>@</sup> 30	
		3.7	X.H.6.3.0.2		FACTOR EXP.	
		3.8	H.05.1.0		M EXP.	
		3.9	V.L. . . . .	<input checked="" type="checkbox"/>		
		4.0	T.09.0.6		→ I 0000	HERE FOR "I"
		4.1	B.0.1.5.6		1 <sup>@</sup> 29	HERE: Ixxxx
		4.2	B.0.1.2.1		ADDRESS ACCUMULATOR	
		4.3	Y.0.1.2.1	<input checked="" type="checkbox"/>	"	"
		4.4	V.0.0.2.0			
		4.5	M.05.1.0		M EXP.	
		4.6	X.B.6.3.0.4			
		4.7	H.0.3.0.5	<input checked="" type="checkbox"/>	Acc. Exp.	
		4.8	V.0.0.4.2			
		4.9	X.B.6.3.0.7			
		5.0	V.0.1.1.1			
		5.1		<input checked="" type="checkbox"/>		
		5.2	T.2.0.1.7		→ N 0000	HERE FOR "N"
		5.3	H.05.3.9			HERE: Nxxxx
		5.4	V.05.0.1			
		5.5	V.05.1.6	<input checked="" type="checkbox"/>		
		5.6	B.0.0.0.0			
		5.7	X.Z.0.0.0.0			CARRY HALT
		5.8	V.0.0.2.0			
		5.9	T.0.7.3.4	<input checked="" type="checkbox"/>	→ E 0000	HERE FOR "E"
		6.0	B.0.0.1.8		1 <sup>@</sup> 29	HERE: Exxxx
		6.1	Y.0.5.6.2			
		6.2	B.L. . . . .			
		6.3	Y.0.1.2.1	<input checked="" type="checkbox"/>	ADDRESS ACC.	

Conditional Stop Code

Carriage Return



Job No. \_\_\_\_\_ Prog. No. 240 Prep. by MK Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0600	U0020			
30000002		01	2		1 <sup>0</sup> 30	
		02				
		03	T0939	<input checked="" type="checkbox"/>	→ Round HERE FOR "R"	
		04	A0133		1 <sup>0</sup> 29	HERE: Round
		05	U0958			
		06	S0622		9 <sup>0</sup> 29	HERE FOR "D"
		07	T0722	<input checked="" type="checkbox"/>	→ D000	
		08	R0037		NO. →	HERE: Dxxxx
		09	U0024			FACTOR STORAGE
		10	B0260			Acc. CHAR.
		11	U0612	<input checked="" type="checkbox"/>		
		12	X06320			FACT. CHAR.
		13	T0629		→ NEG. quo.	
		14	S0357		1 <sup>0</sup> 30	
		15	T0020	<input checked="" type="checkbox"/>	→ quo = 0	
		16	S0459		1 <sup>0</sup> 1-1 <sup>0</sup> 30	
		17	T0641		→ No OVERFLOW	
		18	H0461		1 <sup>0</sup> 1	
		19	U0620	<input checked="" type="checkbox"/>		
		20	M0363		1 <sup>0</sup> 1	
		21	X06307			
		22	B0844		1 <sup>0</sup> 30	
		23	X56302	<input checked="" type="checkbox"/>		FACTOR Exp.
		24	A0305			Acc. Exp.
		25	U0154			
		26	D0762		2 <sup>0</sup> 29	
		27	U0021	<input checked="" type="checkbox"/>		
		28	X70009		9 <sup>0</sup> 29	
		29	A0301		1 <sup>0</sup> 1-1 <sup>0</sup> 25	
		30	T0345		→ 71 BIT OVERFLOW	
		31	S0317	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Royal MCBee Corporation

Job No. \_\_\_\_\_ Prog. No. 240 Prep. by MK Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0632	U0642			
		33	B0205		1 <sup>0</sup> 1	
		34	X06320			
		35	X06307	<input checked="" type="checkbox"/>		
		36	U0131			
		37	Y0007			
		38	S0460		1 <sup>0</sup> 29	
		39	Y0000	<input checked="" type="checkbox"/>		
		40	U0000			
		41	A0363		1 <sup>0</sup> 1	
		42	X06307			
		43	U0623	<input checked="" type="checkbox"/>		
		44	XZ0016		1 <sup>0</sup> 25	
		45	M0017		1 <sup>0</sup> 1	
		46	H0532			M CHAR.
		47	U0651	<input checked="" type="checkbox"/>		
		48	T0738		→ U0000	HERE FOR "U"
		49	A0314		1 <sup>0</sup> 29	HERE: Uxxxx
		50	U0022			
		51	X06302	<input checked="" type="checkbox"/>		FACTOR Exp.
		52	H0510			M Exp.
		53	U0020			
		54	XZ1600			STOP (on SW 46)
		55	U0020	<input checked="" type="checkbox"/>		
		56	T0707		→ P0000	HERE FOR "P"
		57	B0443		U0645	HERE: Pxxxx
		58	Y0037			
		59	U0024	<input checked="" type="checkbox"/>		
		60				
		61	E0140		XZ6363	
		62	U0749			
		63	B0121	<input checked="" type="checkbox"/>		ADD. Acc.

Conditional Stop Code



Carriage Return

Royal MCBee Corporation

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		07.0.0	U.08.0.4				
		0.1	T.06.5.4			→ 70000	HERE FOR "Z"
		0.2	B.00.2.4				HERE: Zxxxx
		0.3	U.06.6.1		<input checked="" type="checkbox"/>		
		0.4	X.06.3.5.4				Factor CHAR.
		0.5	U.01.3.7				
		0.6					
		0.7	B.03.0.5		<input checked="" type="checkbox"/>	Acc. Exp	HERE: P0000
		0.8	X.06.3.3.7				
		0.9	U.01.5.9				Acc. CHAR.
		1.0	R.13.3.9				} OUTPUT ROUTINE
		1.1	U.13.3.4		<input checked="" type="checkbox"/>		
		1.2	B.00.0.0				} MODIFY ADDRESS
		1.3	A.01.5.6			1 @ 29	
		1.4	Y.00.0.0				
		1.5	U.01.4.7		<input checked="" type="checkbox"/>	→ DELAY	
		1.6	T.08.3.1			→ Y0000	HERE FOR "Y"
		1.7	A.04.6.0			1 @ 29	HERE Yxxxx
		1.8	Y.08.0.4				
		1.9	U.06.6.3		<input checked="" type="checkbox"/>		
7.0000.002		2.0	24R763W.2			Q. For e <sup>+</sup>	
		2.1					
		2.2	A.02.4.4			1 @ 29	
		2.3	M.08.4.5		<input checked="" type="checkbox"/>	1 @ 1	
		2.4	U.08.3.9				
		2.5	X.7.00.0.2			2 @ 29	
		2.6	B.03.0.5			Acc. Exp.	
		2.7	T.07.6.3		<input checked="" type="checkbox"/>	→ Neg. Exp.	
		2.8	S.05.0.0			1 @ 25	
		2.9	T.08.0.1				
		3.0	U.05.5.6			→ ERROR HALT Exp. Z 32	
		3.1	B.02.6.0		<input checked="" type="checkbox"/>	Acc. CHAR.	

Conditional Stop Code  Carriage Return

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		07.3.2	R.0.07.5.9				
		3.3	U.00.2.0				
		3.4	B.01.5.6			1 @ 29	
		3.5	A.00.0.0		<input checked="" type="checkbox"/>	Loc of E0000	
		3.6	Y.07.3.7				
		3.7	U.5.7				EXIT FROM EXP. ROUTINE
		3.8	B.05.1.0			M. Exp.	
		3.9	X.06.3.0.4		<input checked="" type="checkbox"/>	Temp.	
		4.0	B.05.3.2			M. CHAR.	
		4.1	U.07.4.2				
		4.2	X.06.3.0.7				
		4.3	B.04.5.8		<input checked="" type="checkbox"/>		
		4.4	U.07.4.6				
		4.5					
		4.6	H.05.3.2			M. CHAR.	
		4.7	B.03.0.5		<input checked="" type="checkbox"/>		
		4.8	U.05.4.5				
		4.9	S.01.2.1			Acc. Acc.	
		5.0	T.00.2.0			→ ≠	
		5.1	S.05.3.0		<input checked="" type="checkbox"/>	1 @ 29	
		5.2	T.06.2.6			→ =	
		5.3	U.00.2.0			→ ≠	
		5.4	T.08.2.9			→ T0000	HERE FOR "T"
		5.5	B.00.4.1		<input checked="" type="checkbox"/>	Acc. CHAR.	HERE: Txxxx
		5.6	T.07.5.9				
		5.7	U.00.2.0				
		5.8					
		5.9	B.00.2.4		<input checked="" type="checkbox"/>	Loc. OF TRANSFER	
		6.0	U.00.2.2				
		6.1					
		6.2	X.7.00.0.2			2 @ 29	
		6.3	A.02.4.9		<input checked="" type="checkbox"/>	1 @ 25	

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 240 Prep. by MK Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.0.0.0	T.0.8.0.8		→ = 0	
		0.1	A.0.6.4.4		1 @ 25	
		0.2	X.H.6.3.4.5			
		0.3	U.0.8.1.2	<input checked="" type="checkbox"/>		
		0.4	Y.L. . . .			
		0.5	U.0.0.2.0			
		0.6	Y.0.0.2.4			
		0.7	U.0.7.3.1	<input checked="" type="checkbox"/>		
		0.8	X.C.6.3.3.7			
		0.9	U.0.8.1.7			
		1.0	X.Z.0.0.0.5		10 @ 30	
		1.1		<input checked="" type="checkbox"/>		
		1.2	B.0.0.4.1		Acc. CHAR.	
		1.3	M.0.2.6.3		1 @ 30	
		1.4	L.0.8.4.3		wwwwww	
		1.5	U.0.8.1.6	<input checked="" type="checkbox"/>		
		1.6	X.H.6.3.4.5			
		1.7	C.L. . . .		STORE IN MEMORY FOR H+CHAR.	
		1.8	U.L. . . .			
		1.9		<input checked="" type="checkbox"/>		
		2.0				
		2.1	X.C.6.3.0.7			
		2.2	U.0.1.5.4			
		2.3	M.0.8.4.5	<input checked="" type="checkbox"/>	1 @ 1	
		2.4	A.0.8.1.0		10 @ 30	
		2.5	X.H.6.3.0.4			
		2.6	B.0.3.0.5			
		2.7	U.0.8.4.6	<input checked="" type="checkbox"/>		
		2.8				
		2.9	B.0.4.5.8		Acc. CHAR. HERE: T0000	
		3.0	T.0.0.2.0			
		3.1	X.C.6.3.0.3	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 240 Prep. by MK Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem FLOATING POINT INTERPRETIVE ROUTINE Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.8.3.2	S.0.3.6.1		COMPLIMENT Acc. CHAR.	
		3.3	U.0.0.4.3			
		3.4	X.P.1.6.0.6			
		3.5	U.0.7.1.2	<input checked="" type="checkbox"/>		
		3.6	B.0.4.5.8		Acc. CHAR. HERE: B0000	
		3.7	T.0.8.3.1			
		3.8	U.0.0.2.0			
		3.9	X.H.6.3.0.4	<input checked="" type="checkbox"/>		
		4.0	B.0.3.0.5		Acc. Exp.	
		4.1	X.S.6.3.0.4		2 @ 30	
		4.2	U.0.8.4.7			
		4.3	W.W.W.W.W.8.0	<input checked="" type="checkbox"/>	Mask	
		4.4			1 @ 30	
		4.5	4.0000000		1 @ 1	
		4.6	X.H.6.3.0.4			
		4.7	H.0.3.0.5	<input checked="" type="checkbox"/>	Acc. Exp.	
		4.8	U.0.0.2.0			
		4.9				
		5.0	T.2.1.1.5		→ H0000	HERE FOR "H"
		5.1	A.0.5.3.0	<input checked="" type="checkbox"/>	1 @ 29	HERE: HXXXX
		5.2	Y.0.8.1.7			
		5.3	R.0.8.1.8		STORE No. IN MEMORY	
		5.4	U.0.7.2.6			
		5.5	U.0.0.2.0	<input checked="" type="checkbox"/>	RETURN FOR NEXT ORDER	
		5.6				
		5.7	T.0.9.6.2		→ C0000	HERE FOR "C"
		5.8	A.0.5.3.0		1 @ 29	HERE: CXXXX
		5.9	Y.0.8.1.7	<input checked="" type="checkbox"/>		
		6.0	R.0.8.1.8		STORE No. IN MEMORY	
		6.1	U.0.7.2.6			
		6.2	U.0.8.2.1		→ CLEAR Asc.	
		6.3		<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 240 Prep. by M K Ck'd. by \_\_\_\_\_ Date 6-10-57

Problem Floating Point Interpretive Routine Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>	09 0 0	A03.15	1 <sup>0</sup> 25	
		0 1	T01.41	→ Exp 7-25	
		0 2	V04.32	→ Exp. 5-25 N=0	
		0 3	B04.58	<input checked="" type="checkbox"/> Acc. CHAR.	
		0 4	V16.12	→ SINE ROUTINE	
		0 5			
		0 6	X10.20		DATA INPUT ROUTINE
		0 7	V16.01	<input checked="" type="checkbox"/>	
		0 8	V02.34		
		0 9	B01.59		
		1 0	XH6.3.46	N/2	
		1 1	XB6.3.61	<input checked="" type="checkbox"/> INIT. GUESS	
		1 2	XH6.3.62		
		1 3	M03.63	5 <sup>00</sup>	
		1 4	XH6.3.43	X <sup>n</sup> /2	
		1 5	V09.17	<input checked="" type="checkbox"/>	
		1 6			
		1 7	XB6.3.46	N/2	
		1 8	V09.19		
		1 9	X06.3.62	<input checked="" type="checkbox"/> X <sup>n</sup>	
		2 0	V09.21		
		2 1	XH6.3.43	X <sup>n</sup> /2	
		2 2	V09.24		
		2 3		<input checked="" type="checkbox"/>	
		2 4	XH6.3.53	X <sup>n</sup> +1	
		2 5	V09.26		
		2 6	X56.3.62	X <sup>n</sup>	
		2 7	T09.31	<input checked="" type="checkbox"/> → Not Finished	
		2 8	B03.00	1 <sup>0</sup> 1	
		2 9	V09.33		
		3 0			
		3 1	XB6.3.53	<input checked="" type="checkbox"/> X <sup>n</sup> +1	

Conditional Stop Code

Carriage Return

Job No. \_\_\_\_\_ Prog. No. 240 Prep. by M K Ck'd. by \_\_\_\_\_ Date \_\_\_\_\_

Problem Floating Point Interpretive Routine Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Contents of Address	Notes
	<input checked="" type="checkbox"/>	09 3 2	V09.12		
		3 3	XM6.3.62	X <sup>n</sup>	
		3 4	V09.35		
		3 5	XH6.3.07	<input checked="" type="checkbox"/>	
		3 6	B03.05	Acc. Exp.	
		3 7	M03.16	1 <sup>0</sup> 1	
		3 8	V01.54		
		3 9	B03.61	<input checked="" type="checkbox"/> Acc. CHAR. Acc. Round	
		4 0	T05.56	→ EXP. INPUT	
		4 1	S02.63	1 <sup>0</sup> 30	
		4 2	T00.20	→ Acc. = 0	
		4 3	V09.44	<input checked="" type="checkbox"/>	
		4 4	B03.16	1 <sup>0</sup> 1	
		4 5	A03.60	1 <sup>0</sup> 30	
		4 6	XH6.3.61	INITIAL GUESS	
		4 7	B03.05	<input checked="" type="checkbox"/>	
		4 8	L02.63	1 <sup>0</sup> 30	
		4 9	S04.28	1 <sup>0</sup> 30	
		5 0	T09.09	→ Even Exp.	
		5 1	B03.05	<input checked="" type="checkbox"/> Acc. Exp.	
		5 2	V09.53		
		5 3	A03.11	1 <sup>0</sup> 30	
		5 4	H03.05	Acc. Exp.	
		5 5	B00.41	<input checked="" type="checkbox"/> Acc. CHAR.	
		5 6	M02.21	1 <sup>0</sup> 1	
		5 7	V09.10		
		5 8	V06.37		
		5 9	B00.00	<input checked="" type="checkbox"/>	
		6 0	A07.25	2 <sup>0</sup> 29	
		6 1	V06.37		
		6 2	B00.41	Acc. CHAR.	
		6 3	V16.00	<input checked="" type="checkbox"/> → COSINE SUBROUTINE	

Conditional Stop Code

Carriage Return

Job No. \_\_\_\_\_ Prog. No. 25-0R Prep. by M.K. Ck'd. by \_\_\_\_\_

Problem "FLOAT" AND "UNEFLOAT" Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
<u>7.0.0.0</u>						
<u>1.0.0.0</u>	<input checked="" type="checkbox"/>					
		<u>0.0.0.0</u>	<u>H.0.0.4.3</u>		<u>TEMP</u>	<u>ENTRY FOR "FLOAT"</u>
		<u>0.1</u>	<u>U.0.0.0.2</u>			
		<u>0.2</u>	<u>C.0.2.5.2</u>			
		<u>0.3</u>	<u>B.0.0.2.5</u>	<input checked="" type="checkbox"/>	<u>B [R+2]</u>	
		<u>0.4</u>	<u>A.0.1.5.4</u>		<u>9 @ 15 + 1 @ 29</u>	
		<u>0.5</u>	<u>C.0.0.4.1</u>		<u>EXIT</u>	
		<u>0.6</u>	<u>C.0.0.4.2</u>		<u>0 → SHIFT</u>	
		<u>0.7</u>	<u>B.0.0.4.3</u>	<input checked="" type="checkbox"/>	<u>No. TO FLOAT</u>	
		<u>0.8</u>	<u>T.0.0.4.4</u>			
		<u>0.9</u>	<u>S.0.0.3.8</u>		<u>1 @ 30</u>	
		<u>1.0</u>	<u>T.0.0.3.9</u>		<u>→ No = 0</u>	
		<u>1.1</u>	<u>A.0.0.4.7</u>	<input checked="" type="checkbox"/>	<u>1 @ 30</u>	
		<u>1.2</u>	<u>S.0.2.5.5</u>		<u>1 @ 4</u>	
		<u>1.3</u>	<u>T.0.1.0.0</u>		<u>→ 4 LEADING ZEROS</u>	
		<u>1.4</u>	<u>S.0.0.5.0</u>		<u>1 @ 4</u>	
		<u>1.5</u>	<u>T.0.1.1.7</u>	<input checked="" type="checkbox"/>	<u>→ 3 ZEROS</u>	
		<u>1.6</u>	<u>S.0.0.5.2</u>		<u>1 @ 3</u>	
		<u>1.7</u>	<u>T.0.0.5.4</u>		<u>→ 2 ZEROS</u>	
		<u>1.8</u>	<u>S.0.2.6.1</u>		<u>1 @ 2</u>	
		<u>1.9</u>	<u>T.0.1.2.8</u>	<input checked="" type="checkbox"/>	<u>→ 1 ZERO</u>	
		<u>2.0</u>	<u>A.0.2.5.6</u>		<u>1 @ 1</u>	
		<u>2.1</u>	<u>E.0.2.5.7</u>		<u>7 W W W W 8 0</u>	
		<u>2.2</u>	<u>C.0.2.5.1</u>		<u>NORMALIZED NUMBER</u>	
		<u>2.3</u>	<u>B.0.2.5.2</u>	<input checked="" type="checkbox"/>	<u>ORIG. NO.</u>	
		<u>2.4</u>	<u>T.0.0.6.0</u>			
		<u>2.5</u>	<u>B. [ ]</u>		<u>Q OF FIXED PT. NO "R" TO HERE (FLOAT)</u>	
		<u>2.6</u>	<u>M.0.2.0.5</u>		<u>1 @ 1 @ 30</u>	
		<u>2.7</u>	<u>A.0.0.4.2</u>	<input checked="" type="checkbox"/>	<u>SHIFT</u>	
		<u>2.8</u>	<u>T.0.1.5.8</u>			
		<u>2.9</u>	<u>S.0.1.0.8</u>		<u>1 @ 25</u>	
		<u>3.0</u>	<u>T.0.0.3.6</u>			
		<u>3.1</u>	<u>U.0.2.6.2</u>	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Job No. \_\_\_\_\_ Prog. No. 25-0R Prep. by M.K. Ck'd. by \_\_\_\_\_

Problem "FLOAT" AND "UNEFLOAT" Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		<u>0.0.3.2</u>	[ ]			
		<u>3.3</u>	<u>XZ.0.0.0.1</u>		<u>1 @ 29</u>	
		<u>3.4</u>	[ ]			
		<u>3.5</u>	[ ]	<input checked="" type="checkbox"/>		
		<u>3.6</u>	<u>A.0.2.5.1</u>		<u>MAGNITUDE</u>	
		<u>3.7</u>	<u>U.0.0.4.0</u>			
<u>7.0.0.0.0.0.0.1</u>		<u>3.8</u>	<u>2</u>		<u>1 @ 30</u>	
		<u>3.9</u>	<u>B.0.2.0.4</u>	<input checked="" type="checkbox"/>	<u>-1 @ 25</u>	
		<u>4.0</u>	<u>A.0.2.2.6</u>		<u>1 @ 25</u>	
		<u>4.1</u>	<u>U. [ ]</u>		<u>EXIT</u>	
		<u>4.2</u>	[ ]		<u>SHIFT @ 30</u>	
		<u>4.3</u>	[ ]	<input checked="" type="checkbox"/>		
		<u>4.4</u>	<u>C.0.2.0.2</u>			
		<u>4.5</u>	<u>S.0.2.5.2</u>			
		<u>4.6</u>	<u>U.0.0.1.2</u>			
<u>7.0.0.0.0.0.0.7</u>		<u>4.7</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>1 @ 30</u>	
		<u>4.8</u>	<u>2</u>		<u>1 @ 30</u>	
		<u>4.9</u>	<u>4 W W W T</u>			
		<u>5.0</u>	<u>E.0.0.0.0.0.0</u>		<u>1 @ 4</u>	
		<u>5.1</u>	[ ]	<input checked="" type="checkbox"/>	<u>TEMP</u>	
		<u>5.2</u>	<u>1.0.0.0.0.0.0.0</u>		<u>1 @ 3</u>	
		<u>5.3</u>				
		<u>5.4</u>	<u>N.0.0.3.3</u>		<u>1 @ 29</u>	
		<u>5.5</u>	<u>C.0.0.3.4</u>	<input checked="" type="checkbox"/>	<u>TEMP. NO.</u>	
		<u>5.6</u>	<u>B.0.0.4.2</u>		<u>SHIFT @ 30</u>	
		<u>5.7</u>	<u>S.0.2.2.2</u>		<u>2 @ 30</u>	
		<u>5.8</u>	<u>C.0.0.4.2</u>			
		<u>5.9</u>	<u>U.0.0.6.2</u>	<input checked="" type="checkbox"/>		
		<u>6.0</u>	<u>C.0.0.3.2</u>			
		<u>6.1</u>	<u>U.0.2.1.5</u>			
		<u>6.2</u>	<u>B.0.0.3.4</u>		<u>TEMP. NO.</u>	
		<u>6.3</u>	<u>U.0.0.2.1</u>	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.0.0	A.0.0.5.0		1 @ 4	
		0.1	N.0.1.4.4		1 @ 27	
		0.2	U.0.1.0.3			
		0.3	C.0.2.5.3	<input checked="" type="checkbox"/>	TEMP. No.	
		0.4	S.0.2.5.4		4 @ 30	
		0.5	A.0.0.4.2		SHIFT @ 30	
		0.6	C.0.0.4.2			
		0.7	U.0.1.1.0	<input checked="" type="checkbox"/>		
		0.8	X.Z.0.0.1.6			
		0.9	X.Z.0.0.1.6			
		1.0	B.0.2.5.3		TEMP. No.	
		1.1	U.0.0.1.2	<input checked="" type="checkbox"/>		
		1.2	S.0.0.4.8		1 @ 30	
		1.3	C.0.0.4.2			
		1.4	U.0.1.1.5			
		1.5	B.0.0.5.1	<input checked="" type="checkbox"/>		
		1.6	U.0.0.2.1			
		1.7	N.0.2.6.0		1 @ 28	
		1.8	C.0.0.5.1			
		1.9	S.0.2.6.2	<input checked="" type="checkbox"/>	3 @ 30	
		2.0	A.0.0.4.2		SHIFT @ 30	
		2.1	U.0.1.1.3			
		2.2	T.0.1.3.2			ENTRY FOR "UNFLOAT"
		2.3	S.0.1.0.9	<input checked="" type="checkbox"/>	1 @ 25	
		2.4	T.0.1.6.3		→ = 0	
		2.5	S.0.2.0.4		-1 @ 25	
		2.6	U.0.1.3.2			
		2.7		<input checked="" type="checkbox"/>		
		2.8	N.0.2.1.4		1 @ 30	
		2.9	C.0.0.5.1			
		3.0	B.0.0.4.2		SHIFT	
		3.1	U.0.1.1.2	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>					
		0.1.3.2	H.0.1.6.1			
		3.3	B.0.1.4.8		5[x+2]	
		3.4	A.0.2.0.6		1 @ 29	
		3.5	U.0.1.3.7	<input checked="" type="checkbox"/>		
		3.6	Z.0.2.5.1			
		3.7	Y.0.2.5.9			
		3.8	B.0.2.0.3		00000070	
		3.9	E.0.1.6.1	<input checked="" type="checkbox"/>		
		4.0	S.0.2.2.6		1 @ 25	
		4.1	T.0.1.4.6			
		4.2	S.0.1.5.7		1 @ 25	
		4.3	U.0.1.4.7	<input checked="" type="checkbox"/>		
		4.4	X.Z.0.0.0.4		1 @ 27	
		4.5	Z.0.2.2.1			
		4.6	S.0.2.0.4		1 @ 25	
		4.7	N.0.0.4.7	<input checked="" type="checkbox"/>	1 @ 30	
		4.8	S.L. J.			R" TO HERE ("UNFLOAT")
		4.9	T.0.2.0.7			
		5.0	S.0.2.2.2		1 @ 29	
		5.1	T.0.2.1.8	<input checked="" type="checkbox"/>	→ No SHIFT	
		5.2	X.Z.0.0.0.0			ERROR HALT
		5.3	U.0.1.5.5			
		5.4	X.E.0.0.0.1		9 @ 15 + 1 @ 29	CONSTANT
		5.5	C.0.0.4.1	<input checked="" type="checkbox"/>		
		5.6	U.0.2.5.9			
		5.7	X.Z.0.0.1.6			
		5.8	A.0.1.0.9		1 @ 25	
		5.9	T.0.0.3.9	<input checked="" type="checkbox"/>	→ = 0	
		6.0	U.0.0.3.6			
		6.1	5 J.			
		6.2	W.W.W.W.W.W.W.W.W.W.			
		6.3	B.0.1.4.8	<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		02.0.0	S.0.0.4.9				←5@15-1@28
		0.1	C.0.2.0.3				
7.0.0.0.0.0.0.5		0.2	[			]	
		0.3	7.0		<input checked="" type="checkbox"/>	MASK	
		0.4	W.W.W.W.W.W.8.0				-1@25
		0.5	4.0.0.0.0.0.0.0				1@1
		0.6	4				
		0.7	A.0.1.3.6		<input checked="" type="checkbox"/>	L <sub>0</sub> TABLE	
		0.8	Y.0.2.5.8				
		0.9	S.0.1.4.5				LF TABLE
		1.0	T.0.1.5.5				
		1.1	B.0.1.6.1		<input checked="" type="checkbox"/>		
		1.2	F.0.1.6.2				W.W.W.W.W.W.8.0
		1.3	U.0.2.5.8				
7.0.0.0.0.0.0.1		1.4	2				1@30
		1.5	S.0.2.5.1		<input checked="" type="checkbox"/>		
		1.6	C.0.2.5.1				
		1.7	U.0.0.2.5				
		1.8	B.0.1.6.1				
		1.9	F.0.1.6.2		<input checked="" type="checkbox"/>	W.W.W.W.W.W.8.0	
		2.0	V.0.2.5.9				
7.0.0.0.0.0.4.2		2.1	2				1@30 TABLE OF SHIFTS
		2.2	4				1@29
		2.3	8		<input checked="" type="checkbox"/>		1@28
		2.4	1.0				1@27
		2.5	2.0				1@26
		2.6	4.0				1@25
		2.7	8.0		<input checked="" type="checkbox"/>		1@24
		2.8	1.0.0				1@23
		2.9	2.0.0				1@22
		3.0	4.0.0				1@21
		3.1	8.0.0		<input checked="" type="checkbox"/>		1@20

Conditional Stop Code  Carriage Return

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
	<input checked="" type="checkbox"/>						
		02.3.2	1.0.0.0				1@19
		3.3	2.0.0.0				1@18
		3.4	4.0.0.0				1@17
		3.5	8.0.0.0		<input checked="" type="checkbox"/>		1@16
		3.6	1.0.0.0				1@15
		3.7	2.0.0.0				1@14
		3.8	4.0.0.0				1@13
		3.9	8.0.0.0		<input checked="" type="checkbox"/>		1@12
		4.0	1.0.0.0				1@11
		4.1	2.0.0.0				1@10
		4.2	4.0.0.0				1@9
		4.3	8.0.0.0		<input checked="" type="checkbox"/>		1@8
		4.4	1.0.0.0				1@7
		4.5	2.0.0.0				1@6
		4.6	4.0.0.0				1@5
		4.7	8.0.0.0		<input checked="" type="checkbox"/>		1@4
		4.8	1.0.0.0				1@3
		4.9	2.0.0.0				1@2
		5.0	4.0.0.0				1@1
		5.1	[			]	<input checked="" type="checkbox"/>
		5.2	[			]	
		5.3	[			]	
		5.4	8				4@30
		5.5	8.0.0.0		<input checked="" type="checkbox"/>		1@4
		5.6	4.0.0.0				1@1
		5.7	7.W.W.W.W.W.8.0				MASK
		5.8	M[			]	SHIFT RIGHT
		5.9	U[			]	<input checked="" type="checkbox"/> EXIT
		6.0	8				1@28
		6.1	2.0.0.0				1@2
		6.2	6				3@30 AND ERROR HALT
		6.2	U.0.0.3.9		<input checked="" type="checkbox"/>		

Conditional Stop Code  Carriage Return

Problem SEARCH FOR ADDRESS Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
<u>0.0006300</u>						
<u>1.0006300</u>	<input checked="" type="checkbox"/>					
		<u>00.00</u>	<u>C0016</u>			
		<u>01</u>	<u>XP0037</u>			
		<u>02</u>	<u>XI0000</u>			
		<u>03</u>	<u>XR0063</u>	<input checked="" type="checkbox"/>		
		<u>04</u>	<u>XU0050</u>			
		<u>05</u>	<u>C0016</u>			
		<u>06</u>	<u>U0007</u>			
		<u>07</u>	<u>Y0057</u>	<input checked="" type="checkbox"/>		
		<u>08</u>	<u>S0023</u>			
		<u>09</u>	<u>T0018</u>			
		<u>10</u>	<u>U0000</u>			
		<u>11</u>	<u>D0017</u>	<input checked="" type="checkbox"/>	<u>106</u>	
		<u>12</u>	<u>E0055</u>		<u>Z6300</u>	
		<u>13</u>	<u>S0042</u>		<u>Z0963</u>	
		<u>14</u>	<u>T0049</u>			
		<u>15</u>	<u>U0013</u>	<input checked="" type="checkbox"/>		
		<u>16</u>	<u>[ ]</u>			
<u>0.00000001</u>		<u>17</u>	<u>Z000000</u>		<u>106</u>	
		<u>18</u>	<u>R0054</u>		<u>Z6301</u>	
		<u>19</u>	<u>Y0048</u>	<input checked="" type="checkbox"/>		
		<u>20</u>	<u>U0056</u>			
		<u>21</u>	<u>XZ6363</u>			
		<u>22</u>	<u>PL ]</u>			
		<u>23</u>	<u>XZ6300</u>	<input checked="" type="checkbox"/>		
		<u>24</u>	<u>PL ]</u>			
		<u>25</u>	<u>XZ0001</u>		<u>1029 &amp; Delay</u>	
		<u>26</u>	<u>UL ]</u>			
		<u>27</u>	<u>XP2456</u>	<input checked="" type="checkbox"/>	<u>TAB</u>	
		<u>28</u>	<u>B0057</u>			
		<u>29</u>	<u>Y0036</u>			
		<u>30</u>	<u>XZ0100</u>			
		<u>31</u>	<u>R0026</u>	<input checked="" type="checkbox"/>	<u>Print track</u>	

Conditional Stop Code



Carriage Return

Problem SEARCH FOR ADDRESS Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op. Address	Stop	Contents of Address	Notes
		<u>00.32</u>	<u>U0012</u>			<u>PRINT TRACK</u>
		<u>33</u>	<u>B0057</u>			
		<u>34</u>	<u>R0026</u>			} <u>PRINT</u>
		<u>35</u>	<u>U0011</u>	<input checked="" type="checkbox"/>	<u>SECTOR</u>	
		<u>36</u>	<u>BL ]</u>			
		<u>37</u>	<u>E0008</u>			
		<u>38</u>	<u>M0017</u>		<u>106</u>	
		<u>39</u>	<u>R0030</u>	<input checked="" type="checkbox"/>	<u>Z0100</u>	
		<u>40</u>	<u>Y0041</u>			
		<u>41</u>	<u>PL ]</u>			<u>PRINT OF</u>
		<u>42</u>	<u>XZ0963</u>			
		<u>43</u>	<u>U0062</u>	<input checked="" type="checkbox"/>		
<u>0.000000.1</u>		<u>44</u>	<u>WWW582</u>			
		<u>45</u>				
		<u>46</u>	<u>Y0022</u>			
		<u>47</u>	<u>U0022</u>	<input checked="" type="checkbox"/>		
		<u>48</u>	<u>[ ]</u>			
		<u>49</u>	<u>S0044</u>		<u>WWW582</u>	
		<u>50</u>	<u>N0025</u>		<u>1029</u>	
		<u>51</u>	<u>Y0024</u>	<input checked="" type="checkbox"/>		
		<u>52</u>	<u>D0017</u>		<u>106</u>	
		<u>53</u>	<u>U0046</u>			
		<u>54</u>	<u>XZ6301</u>			
		<u>55</u>	<u>XZ6300</u>	<input checked="" type="checkbox"/>		
		<u>56</u>	<u>B0021</u>		<u>Z6363</u>	
		<u>57</u>	<u>EL ]</u>			
		<u>58</u>	<u>S0016</u>			
		<u>59</u>	<u>T0062</u>	<input checked="" type="checkbox"/>		
		<u>60</u>	<u>S0025</u>		<u>1029</u>	
		<u>61</u>	<u>T0027</u>		<u>→ found</u>	
		<u>62</u>	<u>B0048</u>			
		<u>63</u>	<u>U0007</u>	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return



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