

DOUBLE PRECISION FLOATING POINT CURVE FIT ACCURACY CHECKING PROGRAMFUNCTION:

To indicate the accuracy of fit achieved by the DFPF Polynomial Curve Fit Program.

INPUT:

The coefficients computed by the Curve Fit Program, the degree of the polynomial (in fixed point), the X and Y values, and the number  $-1 \times 10^{99}$ .

OUTPUT:

For each set of X and Y values, the computed value  $Y'$ ,  $Y' - Y$ , and  $(Y - Y')/Y$ , when  $-1 \times 10^{99}$  is read,  $\sum (Y' - Y)^2$  will be printed.

STORAGE:

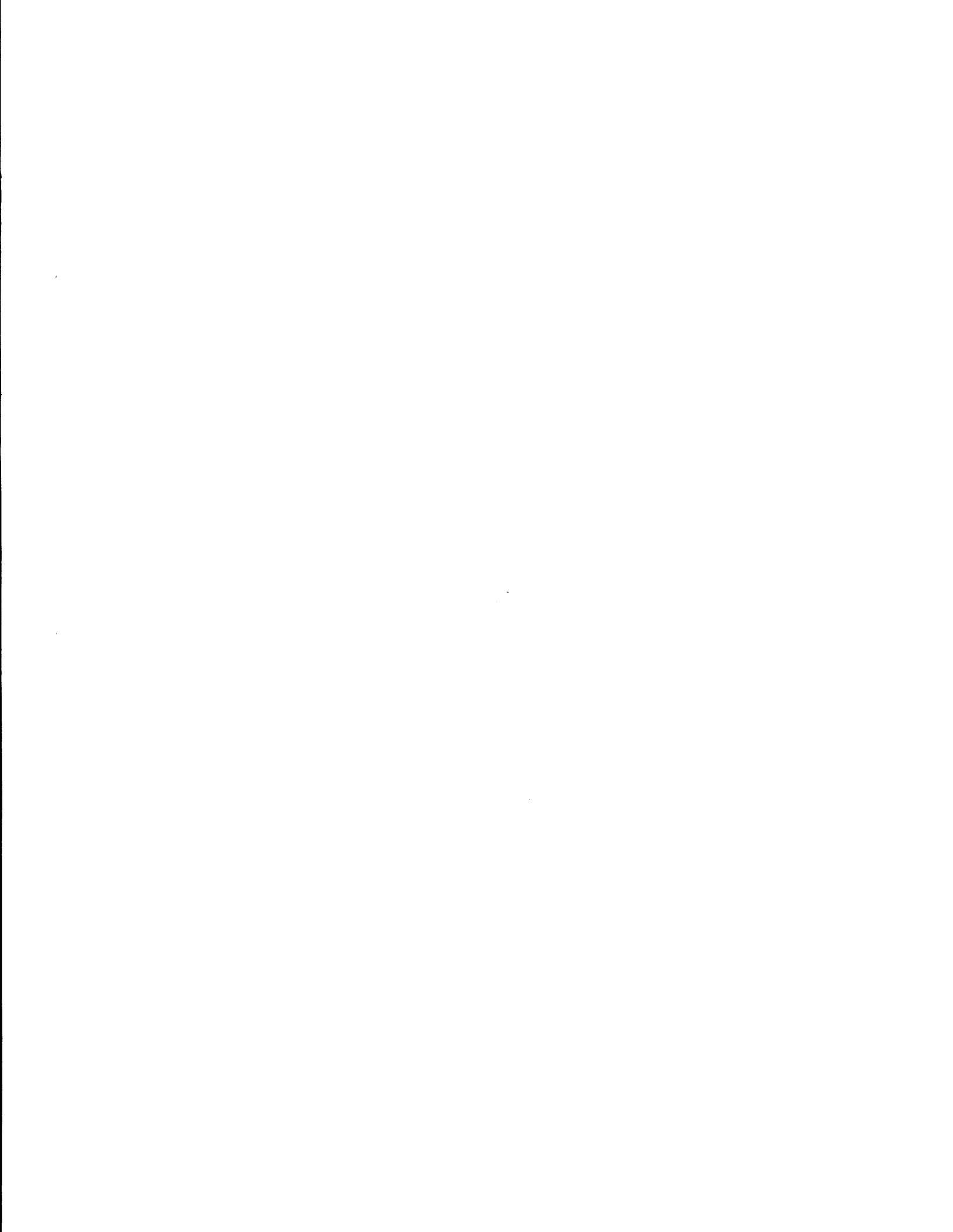
One Track and 35 sectors for program and constants, plus  $3n + 3$  sectors immediately following for storage of the coefficients.

PROGRAM STOPS:

Lo + 0122 Break point 8 stop after printing  $\sum (Y' - Y)^2$   
A start causes a return to the beginning of this program.

PROCEDURE:

Prepare a data tape for the DFPF Polynomial Curve Fit Program as prescribed. Load the data and run the program with breakpoint 16 raised. Depress the "punch on" lever on the flexowriter to punch the coefficients on tape, manually punch an f' on the end of the coefficient tape. This tape is used as the first part of the input to this program. The original input tape to the Curve Fit Program serves as the remaining input to this program.



Problem D. P. F. P. CURVE FIT ACCURACY CHECKING PROGRAM Track

Program Input Codes	STOP	Location	Instruction Op. Address	STOP	Contents of Address	Notes
		<input checked="" type="checkbox"/>				
		0 0 0 0	B 0 1 2 5			
		0 1	Y 0 0 1 1			
		0 2	Y 0 0 1 2			
		0 3	Y 0 1 1 8	<input checked="" type="checkbox"/>		
		0 4	Y 0 1 1 9			
		0 5	Y 0 0 3 4			
		0 6	Y 0 0 3 5			
		0 7	Y 0 0 4 1	<input checked="" type="checkbox"/>		
		0 8	Y 0 0 4 2			
		0 9	Y 0 1 0 0			
		1 0	Y 0 1 0 1			
		1 1	R [ ]	<input checked="" type="checkbox"/>		
		1 2	U [ ]			
		1 3	C 0 1 2 6		$\Sigma \Delta^2$	
		1 4	H 0 1 2 6		$\Sigma \Delta^2$	
		1 5	I 0 1 3 5	<input checked="" type="checkbox"/>	Coef.	
		1 6	X E 0 0 0 0			
		1 7	X P 0 0 0 3			
		1 8	C 0 1 2 9			
		1 9	X I 0 0 0 0	<input checked="" type="checkbox"/>		
		2 0	N 0 0 5 3		1@8	
		2 1	H 0 1 2 9			
		2 2	E 0 0 5 5		mask	
		2 3	M 0 0 5 1	<input checked="" type="checkbox"/>	-6@4	
		2 4	A 0 1 2 9			
		2 5	M 0 0 5 7		3@21	
		2 6	A 0 1 2 4		Loc	
		2 7	S 0 0 3 3	<input checked="" type="checkbox"/>	3@29	
		2 8	Y 0 0 4 9			
		2 9	X P 1 6 1 5			
		3 0	Y 0 0 4 4			
		3 1	A 0 0 3 3	<input checked="" type="checkbox"/>	3@29	

Conditional Stop Code



Carriage Return

LGP-30 CODING SHEET

Job No. 0163 Prog. No. \_\_\_\_\_ Prep. by C. E. Ohme Ck'd. by \_\_\_\_\_ Date 6-7-60

Problem D. P. F. P. CURVE FIT ACCURACY CHECKING PROGRAM Track \_\_\_\_\_

Program Input Codes	Stop	Location	Instruction Op.	Address	Stop	Contents of Address	Notes
					<input checked="" type="checkbox"/>		
		0,0,3,2	Y	0,0,3,9			
		3,3	X,Z	0,0,0,3			
		3,4	R	[ ]			
		3,5	U	[ ]	<input checked="" type="checkbox"/>		
		3,6	I	0,1,2,9		X, Y	
		3,7	A	0,1,1,5		10 <sup>98</sup>	
		3,8	T	0,0,4,9			
		3,9	B	[ ]	<input checked="" type="checkbox"/>		
		4,0	U	0,0,4,3			
		4,1	R	[ ]			
		4,2	U	[ ]			
		4,3	M	0,1,2,9	<input checked="" type="checkbox"/>	X	
		4,4	A	[ ]			
		4,5	X,E	0,0,0,0			
		4,6	B	0,0,4,4			
		4,7	S	0,0,3,3	<input checked="" type="checkbox"/>	3@29	
		4,8	U	0,0,5,8			
0,0,0,0,0,0,7		4,9	E	[ ]			
		5,0	P	1,8,9,0			
		5,1	K	0,0,0,0,0,0,0	<input checked="" type="checkbox"/>		
		5,2	P	1,8,9,8			
		5,3	8	0,0,0,0,0		1@8	
		5,4	P	1,8,F,0			
		5,5	7,8	0,0,0,0,0,0	<input checked="" type="checkbox"/>		
		5,6	U	0,1,1,8			
0,0,0,0,0,0,1		5,7	J	0,0,0			
		5,8	Y	0,0,4,4			
		5,9	S	0,1,2,4	<input checked="" type="checkbox"/>	Loc	
		6,0	T	0,0,6,2			
		6,1	U	0,0,4,1			
		6,2	X,P	2,4,4,8			
		6,3	X,Z	0,0,0,1	<input checked="" type="checkbox"/>		

Conditional Stop Code



Carriage Return

Program Input Codes	Stop	Location	Instruction Op.	Address	Notes	Contents of Address
		0,1,0,0	R	[ ]		
		0,1	U	[ ]		
		0,2	X,P	0,0,0,0		
		0,3	S	0,1,3,2	<input checked="" type="checkbox"/>	Y
		0,4	X,P	0,0,0,0		
		0,5	H	0,1,2,9		$\Delta$
		0,6	D	0,1,3,2		Y
		0,7	X,P	0,0,0,0	<input checked="" type="checkbox"/>	
		0,8	B	0,1,2,9		$\Delta$
		0,9	M	0,1,2,9		$\Delta$
		1,0	A	0,1,2,6		$\Sigma \Delta^2$
		1,1	H	0,1,2,6	<input checked="" type="checkbox"/>	$\Sigma \Delta^2$
		1,2	X,E	0,0,0,0		
		1,3	B	0,0,4,9		
		1,4	U	0,0,2,9		
0,0,0,0	0,0,0,5	1,5	2,Q,K	1,1,7,6	<input checked="" type="checkbox"/>	F
		1,6		7,2,9,8,4,8,2		
		1,7		5,1		J
		1,8	R	[ ]		
		1,9	U	[ ]	<input checked="" type="checkbox"/>	
		2,0	P	0,1,2,6		
		2,1	X,E	0,0,0,0		
		2,2	X,Z	0,8,0,0		
		2,3	U	0,0,0,0	<input checked="" type="checkbox"/>	
		2,4	A	0,1,3,5		Loc
		2,5	Z	[ ]		
		2,6				
		2,7			<input checked="" type="checkbox"/>	$\Sigma \Delta$
		2,8				
		2,9				
		3,0				X
		3,1			<input checked="" type="checkbox"/>	

Conditional Stop Code

Carriage Return