

HP 35s



F2215-90012 HP

www.register.hp.com :

" "

HEWLETT-PACKARD

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Hewlett- Packard

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San Diego, CA 92127-1899
USA

2008 /

:

.

1-11

1-1

1-1

1-1

1-2

2-1Shift

3-1

3-1(Cursor)

4-1 /

6-1

8-1

9-1ALG RPN /

11-1()

12-1

15-1

15-1

15-1 /

17-1Cursor /

17-1 /

18-1

18-1

19-1

21-1

23-1(.) (.)

25-1SHOWing 12
 26-1
 26-1
 27-1()
 28-1
 28-1
 29-1 /
 1-2 : RPN .2
 1-2
 3-2 Y X
 3-2X /
 3-2 /
 4-2 Y X
 5-2 -
 6-2ENTER
 7-2 /
 8-2LAST X
 9-2LAST X
 10-2LAST X
 12-2RPN /
 12-2 /
 14-2
 14-2
 16-2
 1-3 / .3
 2-3
 4-3 /

4-3	.....MEM	/	
4-3	.....VAR	/	
6-3	.....	
6-3	.....	
7-3	.....	/
8-3	.....		x
9-3	....."J" "I"		
1-4	.....		.4
1-4	.....	
2-4	.....	
2-4	.....	/
3-4	.....	
3-4	.....		π
4-4	.....	/
4-4	.....	
6-4	.....	
6-4	.....	
8-4	.....	
10-4	.....	
10-4	.....	/
13-4	.....	
13-4	.....	/
14-4	.....	
15-4	.....	/
15-4	.....Factorial	/	
15-4	.....Gamma		
15-4	.....	/
17-4	.....	/

1-5	.....	.5
1-5	.....
2-5	.....
2-5 /	
3-5	.....
4-5 /	
4-5	.....r /	
6-5 /	
8-5	.....
8-5	.....
9-5	.....
10-5	.....
1-6	.....	.6
1-6	.....
3-6	.....
4-6	.....
4-6	.....
5-6	.....
5-6	.....
6-6 /	
6-6	.....
8-6 /	
9-6 /	
10-6	.....
11-6	..... ENTER	
12-6	..... XEQ	
13-6	.....

14-6	.....	/
14-6	.....	/
16-6	.....	
19-6	.....	/
19-6	.....	/
1-7	.....		.7
1-7	.....	
7-7	.....SOLVE	/	
7-7	.....	/
8-7	..... SOLVE	/	
8-7	.....SOLVE		
12-7	.....	
1-8	.....		.8
2-8	.....(ò FN)		
6-8	.....	
6-8	.....	
6-8	.....	/
8-8	.....	
1-9	.....		.9
2-9	.....	
2-9	.....	
5-9	.....	
7-9	.....	
8-9	.....	
1-10	.....Vector		.10
1-10	.....	
6-10	.....	

7-10			
8-10		/	
1-11		/	.11
4-11	16 8 2	/	
6-11		/	
6-11			
7-11		/	
8-11			
1-12 .....			.12
1-12		/	
2-12		/	
2-12		/	
2-12		/	
4-12			
4-12		/	
6-12			
7-12			
7-12		/	
10-12		/	/
11-12		/	
11-12			
12-12			
			.2
1-13 .....			.13
3-13			
3-13		/	

4-13	.....(RTN LBL)
4-13	..... ALG RPN
5-13 /
6-13	.....
7-13 / / /
8-13	.....
10-13	.....
10-13	.....(XEQ)
11-13	.....
12-13 /
13-13	..... / INPUT
15-13	..... / VIEW
16-13()
18-13	.....
19-13	.....
19-13	.....
19-13 / /
19-13	.....
20-13	.....
21-13	.....
21-13 /
22-13	.....
22-13	.....(MEM) /
23-13 /
23-13	.....
24-13	.....
25-13	.....BASE

25-13	.....	/
25-13	.....	
26-13	.....	/
1-14	.....		.14
1-14	.....	( )
1-14	.....	(XEQ, RTN)	
2-14	.....	
4-14	.....	(GTO)	
5-14	.....		GTO
5-14	.....		GTO
6-14	.....	
7-14	.....	(x?y, x?0)	
9-14	.....	/
16-14	.....	
17-14	.....	(GTO)	
18-14	.....	(DSE, ISG)	
20-14	.....	/	/
20-14	.....	"J" "I"	
21-14	.....	(J) (I)	/
23-14	.....	(I)/(J)	
23-14	.....	(I)/(J)	
1-15	.....		.15
1-15	.....	
6-15	.....		SOLVE
7-15	.....	
10-15	.....	
11-15	.....	/

1-16	.....	.16
1-16	.....
11-16 / - /	
18-16	.....

1-17	.....	.17
1-17	.....
7-17	.....
11-17	..... " Vectors "	

.3

A-1	.....	A.
A-1	.....
A-1	.....
A-2	.....
A-3	.....
A-4	.....
A-5	.....
A-7	.....

錯誤! 尚未定義書籤。

A-12	.....
A-12	.....
B-1	..... /	B.
B-1	.....
B-2	.....Resetting	
B-3 /	
B-4 /	
B-5 /	
B-5	.....
B-6	.....LAST X /	

B-7 /

C-1:ALG **C.**

C-1ALG

C-2ALG

C-2

C-3 /

C-3

C-4

C-4

C-4 /

C-5

C-6

C-7 /

C-7 /

C-8

C-8

C-1016 8 2 /

C-11 /

D-1 **D.**

D-1 Root

D-3

D-8 SOLVE

D-13

E-1 **E.**

E-1
E-2
E-7

()

F.
G.
H.

1

1

.ALG /

RPN /



.ALG

C

C

ON

C

(

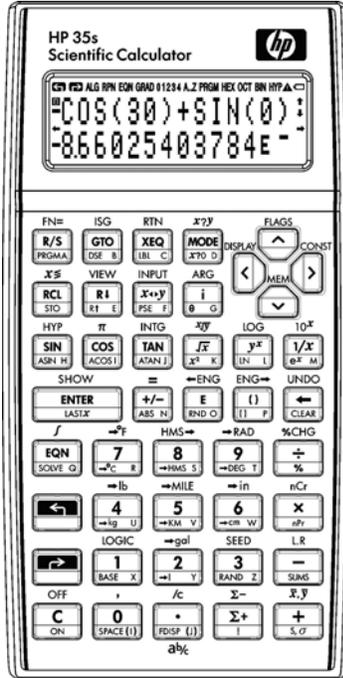
OFF

)

10

A

/



" shifted "

) " left-shifted "

:

)

.(

) " right-shifted "

(

(←)

(shift

(→)

(C)

(←)

)



(



/

A...Z

(

)

." "

.13

/

3

Cursor Keys



() /

<p>(x VARS ALL Σ STK CLVARx) CLEAR</p> <p>) x /</p> <p>(X</p> <p>/</p> <p><input type="checkbox"/> (3ALL)</p> <p>CLR ALL? Y N</p> <p>. 3PGM 3ALL</p> <p>CLR <input type="checkbox"/> (3PGM)</p> <p>PGMS? Y N</p> <p>. 3EQN 3ALL</p> <p><input type="checkbox"/> (3EQN)</p> <p>CLR EQN? Y N</p> <p>/</p> <p><input type="checkbox"/> (CLVARx)</p> <p>/</p> <p>CLVAR056 :</p> <p>.56</p>	<p><input type="checkbox"/> CLEAR</p>

.HP 35s

12	$\hat{x} \hat{y} r m b$ /	L.R.
12	$\bar{x} \bar{y} \bar{x} w$ y x /	\bar{y}, \bar{x}
12	$s_x s_y \sigma_x \sigma_y$	s,σ
4	41 .8-4 " "	CONST
12	$n \sum x \sum y \sum x^2 \sum y^2 \sum xy$ / /	SUMS
12	DEC HEX OCT BIN d h o b (16) /	BASE
C 4	SGN INT+ Rmdr INTG FP IP	INTG
11	AND XOR OR NOT NAND NOR	LOGIC

14	SF CF FS?	/ / / ."flags" /	FLAGS
14		.Y X	x?y
14		X	x?0
1, 3, 12	VAR PGM	/ ("bytes ") / .(/) /	MEM
4, 1	DEG RAD GRAD ALG RPN	/	MODE
1	FIX SCI ENG ALL. , 1,000 1000 x [RPN] y x+y [RPN] r	[B] [▲]	DISPLAY
C	X Y Z T	.ALG / .-T-Z -Y-X-	R↓ R↑
1, 3, 6, 12		.5-1 [CLEAR]	CLEAR

: /

[↓] [↑] [←] [→]

.1

.2

.()

.3

.()

[ENTER]

[ENTER]

SUMS CONST

< >

. ↓ أو ↑

^ v

:

DISPLAY

DISPLAY

.7÷6

()

:

:

:

0
0

1FIX 2SCI
3ENG 4ALL

↵ DISPLAY

.DISPLAY

/ FIX

1 or ENTER

.2

/ 0.0000
0.0000

4

0.0000
0.8571

6 ENTER 7 ÷

0
8.57142857143E-

↵ DISPLAY 4

/

/

/

:

/

/

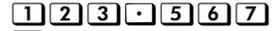
MEM CLEAR

.5-1



123.5678.

1FIX 2SCI
3ENG 4ALL
123.5678.



123.5678.

1FIX 2SCI
3ENG 4ALL
1X 2VARS
3ALL 4Σ
123.5678



ALG RPN /

ALG () RPN

.()

(RPN)

/

/

(ALG)

: RPN /

.RPN /



.()

RPN

PRN /

:ALG /

.ALG /

MODE 4 (4FLG)

.() ALG ALG /

:

. 3 =2+1

ENTER

RPN

. + :

.ENTER

+

ALG

RPN /	ALG /
1 ENTER 2 +	1 + 2 ENTER

RPN

ALG

() RPN () ALG

" ✓ "

.ALG

RPN



.ALG

C

UNDO ()

()

()

2

2

LAXT X

:





 UNDO

.

▪

▪

▪

/

/

UNDO ()

UNDO

.CLEAR

UNDO

UNDO ()

:

 UNDO

▪

▪

▪





/

) 

(

UNDO

0.5+SIN(60)
1.36602540378

.RPN / 14
() E ALG / 14

ALG RPN EQN GRAD 01234 A.Z PRGM HEX OCT BIN HYP
↑
↓
← →

HP 35s

	/	
	" (/) B "	B
5	<p>  FDISP </p> <p>"▲▼" "▼" "▲"</p> <p>/</p> <p>"▲▼"</p>	<p>▲</p> <p>▼</p>
1	Left shift /	
1	Right shift /	
1 2		RPN
C 1		ALG
13		PRGM
6		EQN
14	) flags	0 1 2 3 4
	.(11 5	
4	RADIANS	RAD or GRAD
	() DEG / GRAD	
11	DEC /	HEX OCT BIN
	(10)	
C 4	Hyperbolic	HYP

() HP 35 S

	/	
6.1	/	←, →
	.2 1 /	
	/	
	(...)	
	< > RPN	
	ALG	
	↔ < ↔ >	
	/	
1, 6, 13	^ v	↑, ↓
	/	
3	/	A..Z
1	.	▲
A	.	☐

. ±9.999999999999⁴⁹⁹

"OVERFLOW"

/

Over flow

.▲

() 0

. ±10⁴⁹⁹

"INVALID DATA"

/

⊕

⊕

⊕

ALG

/

) ⊕

.(

--

⊕

10

/

E (4.2x10⁻⁵)

/

. 4.2E-5

4.2x10⁻⁵

10

.()

:

FIX 4 /

: : :

0.000062. 0 . 0 0 0
 0 6 2

0.0001 ENTER

4.2000E-5 0 . 0 0 0 0
 0 4 2
 ENTER

/

() / E

. 1 E 6 1000000

6.6261×10⁻³⁴ :

: : :

0 6 . 6 2 6
 6.6261. 1

×10^x 0 E

6.621E-

/ 6.621E-34 3 4 +/- ENTER

6.621E-34

/

/ 1 E

. 10^x (10) /
 .(4) y^x () /
Cursor /
 (-)
 : : :
 : 123- **1 2 3**
 - , /
 / 11.0905 \sqrt{x} ✓
 , **ENTER**
 , **ENTER**
 123.0000 **1 2 3 ENTER** ✓
 127.0000 **4 +** ✓
 ← , () /
 ← () /
OVER FLOW /
 $-9.9999999999 \times 10^{499}$
 $. 9.9999999999 \times 10^{499}$
OVERFLOW $9.9999999999 \times 10^{499}$ $-9.9999999999 \times 10^{499}$ ■

) .(ALG) RPN / HP 35s
 .() (

RPN .ALG RPN HP 35s
 .1 2 .2 1
 .ENTER) /
 .ENTER) /
 .2 1

.ALG RPN / 3.4²

: : :

) RPN / (MODE) 5 (5RPN)

.(

0 3 3 . 4

3.4

0 2 x²

11.56

.ALG (MODE) 4 (4ALG)

SQ() 2 x²

/ SQ(3.4) 3 3 . 4

Enter SQ(3.4) ENTER

11.56

SQ() 2 x²

ALG /

.(RPN /)

ALG	ALG	RPN	RPN	
	SQ()		X ²	2 x ²
	SQRT()		√x	√x
	EXP()		e ^x	e ^x
	ALOG()		10 ^x	10 ^x
	INV()		1/x	1/x

nCr y^x ÷ +

RPN

x

()

ALG

.ALG

RPN /

6C_4 3+2

: : :

) RPN

MODE 5 (5RPN)

.(

.x 3 2
3

2
3-

2 ENTER 3

! Enter

0
5

+

.x 4 6

6
4.

6 ENTER 4

nCr

5
15

/

.ALG

MODE 4 (4ALG)

2+3 5

2 + 3 ENTER

/

nCr(,)

nCr

6

nCr(6,4)

6 > 4

.4

Enter

nCr(6,4) 15

ENTER

y^x \div \times $-$ $+$

ALG /

y x f(x,y)

X Y

RPN

.X

x Y

y

/

\sqrt{x}

y ($\sqrt[x]{y}$) x^{th}

8 ENTER 3 nCr $\sqrt[x]{y}$ (

)

.RPN

nCr $\sqrt[x]{y}$ 3 > 8 ENTER ()

ALG

RPN

.ALG

ALG	ALG	RPN	RPN	
-----	-----	-----	-----	--

^	y^x	y^x
XROOT(,)	$x\sqrt[y]{y}$	$\sqrt[y]{y}$
IDIV(,)	INT÷	INT÷

x **+**

.y x **x↔y** RPN
 .(y x ") 2

12

. Display
 ENG SCI FIX)

↵ **DISPLAY**

(ALL

15

(FIX)

/

"," ", "

11)

11

FIX

-FIX

(

(11)

(10)

1

0

"9" "8" "0" "7"

123.456.7089

.FIX 4

(10⁻¹¹)

(10¹¹)

(SCI)

/

" , " " , ") SCI
 . -SCI / 11 ()
) 11 10 [1] [0]
 (10
 "6" "4" "3" "2" 1.2346E5
 1.2346 × 10⁵ : 10 E 5 . SCI 4
 12
 (ENG) /
 ENG
 . (" , " " , ")
 - -) 10³
 . ()
 10 . - ENG
 . [1] [0] 11
 "6" "4" "3" "2" .123.46E3
 "E" "3" . ENG 4
 123.46 × 10³ : 10 (3)
 [←] [ENG→] [←] [←ENG]
 3

:	:	:	:
:	:	:	:
/	ENG-	DISPLAY 3 (3EN	
) 4	0.0000E0	G)	
.(	0.0000E0	4	
12.346E4	123.46E3	1 2 . 3 4 6	
	123.46E3	E 4 ENTER	
	123.46E3	←ENG or	
.3	123.46E3	ENG→	
	0.12346E6	←ENG	
.3	123.46E3	ENG→	
	123.46E3		

(ALL) /

12

/ /

(*)(*)

HP 35s

.()

12,345,678.90

.RPN

:

:

:

DISPLAY 4 (4AL L)

.(/)

12,345,678.9
12,345,678.9

1 2 3 4 5
6 7 8 . 9
ENTER

/

12,345,678.9
12,345,678.9

DISPLAY 6 (6.)

/

12345678.9
12345678.9

DISPLAY 8 (810 00)

/

12,345,678.9
12,345,678.9

DISPLAY 5 (5.)
DISPLAY 7 (71, 000)

(x[RPN]y, x+y[RPN], r B A)g

r B A x+y[RPN] x[RPN]y /

3+4i

.ALG

x+y[RPN]

3+4i

: : :
.ALG / **MODE** **4** (4ALG)

3 **RPN** **4** **3** **i** **4** **ENTER**
3 **RPN** **4**

/ .3i4

. x+yi **3** **RPN** **4** **DISPLAY** **.**
3+**4** **1** (11x+y **RPN**)

.rθa **RPN** **3** **RPN** **4** **DISPLAY** **.**
53.13° 5 5053.1301023542 **0** (10r **B** **▲**) or
DISPLAY **^**
^ **>** **ENTER**

SHOWing 12

12

FIX 4 "14.8746" 14.8745632019
فهي ("632019")

DISP **SHOW**

SHOW (/)

: : :
58.5000 **4** **5** **ENTER** **1** **.**
3 **x**

: 5.85E1 **DISP** **DISPLAY** **2** (2SCI)
2

58.5E0 **DISP** **DISPLAY** **3** (3ENG)
2

58.5 **DISP** **DISPLAY** **4** (4ALL)

58.5000 **DISP** **DISPLAY** **1** (1FIX)
4

.58.5

0.0171

$1/x$.

170940170940

SHOW (hold)

SHOW

HP 35s

c b

a a b/c

HP 35s

. 1 < c ≤ 4095 :c 0 ≤ b < c :b

:

) .

.1

.

numerator / .2

. denominator /

/ ENTER

denominator / .3

a b/c

3/4

12 3/8

RPN

12 3/8

: : :

/

0
12.3

1 2 . 3

.

0.0000
12 3/8.

. 8

12.3750
12.3750

ENTER

12 3/8
12 3/8

FDISP

.

3/4

12 3/8
0 3/4.

. 3 . 4

.(0 3/4)

.12 3/8 3/4

0
13 1/8

+

0
13.1250

FDISP

" " 5

()



.()

RPN

/

←

C

/

▪

ALG

/

/ ■
 () ▲
 ▲ □ □

,) 30KB 30 HP 35s
 .(

: MEM
1VAR 2 PGM
nnn mm.mmm
nnn
Bytes mm.mmm

/ ") 1 (1VAR)
2 (2PGM) .3 "VAR /
/

, / 1 (1VAR) / .1
2 (2PGM)

▲ ▼ / .2
CLEAR / .3

C / .4

```

/
)
.(B " / "
: /
CLR ALL? Y N / [4] (4ALL) .1
[←] (Y) [ENTER] .2

```


.RPN /

" " 2

HP 35s

RPN

()

HP

.(1956 – 1878) Jan Łukasiewicz

" "

(Operators)

Łukasiewicz

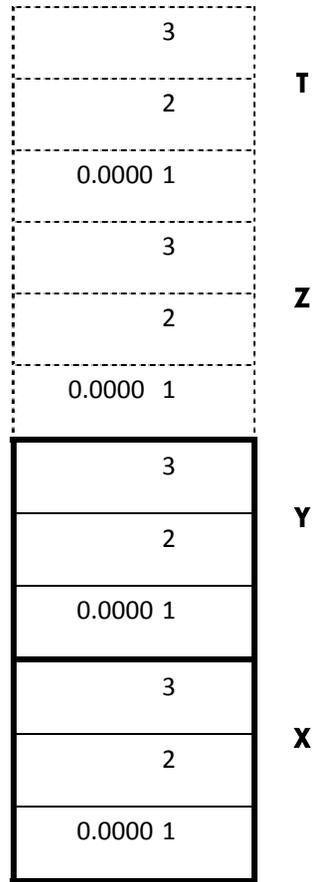
.RPN

:

" "

T Z Y X

." "T



: X " "

:

- . 3 2
1 1-D
■
- . 3
2 1 2-D
■
- .3 2 1
3-D
■

,(subroutines) ()

/

()
 /
 [10^x] .Y X
 .X /
 X / [CLEAR] 1(×)
 / [C]
 [CLEAR] 1(×) :
 X [CLEAR] 1(×) ← X
 .(cursor)
 /
 () R↓
 " / " () R↓
 .y x /

.([1] ENTER [2] ENTER [3] ENTER [4]) .4 3 2 1

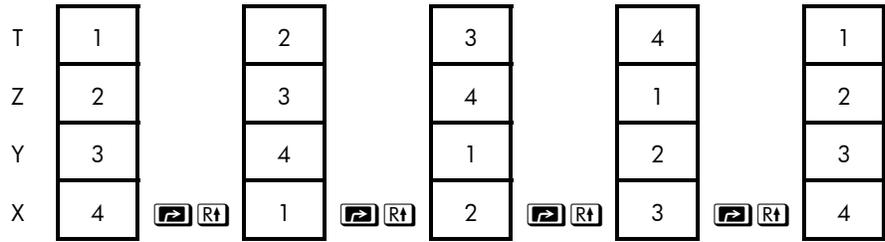
: () R↓

T	1	4	3	2	1
Z	2	1	4	3	2
Y	3	2	1	4	3
X	4	3	2	1	4

[R↓] [R↓] [R↓] [R↓] [R↓]

Z T .T X
 --
 Y X
 () R↑
 " / " R↓ () R↓ R↓

X T .Y X



Y X

(y x) x↔y
 x↔y
 Y X
 .Y X
 x↔y /

:(8 × 13) ÷ 9

1 3 ENTER 8 x 9 x↔y ÷

:

9 ENTER 1 3 ENTER 8 x ÷

() T

ملاحظة



(/)X
 .()X Y X
 / . 4 3 2 1

3+4-9

T	1		1		1		1
Z	2		1		2		1
Y	3		2		7		2
X	4	+	7	9	9	-	-2
	1		2		3		3

. T () . " " .1
 .T . " / " .2
 . .3
 Z T () / ■
 . X / ■
 .X / ■
 . / / B

ENTER

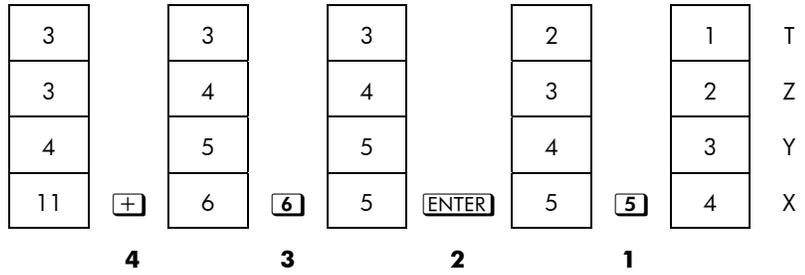
ENTER

: .4 3 2 1

5+6

2

1



. / .1

.X / .2

. / .3

.T .4

() Y X **ENTER**

.X

ENTER **ENTER** 0 : / **ENTER**

/ . **ENTER**

(Row)

ENTER

. **ENTER** **+**

(Z T)

ENTER

% 50

3 100

Replicates T – register T /									
	T	1.5		1.5		1.5		1.5	1.5
1	Z	1.5		1.5		1.5		1.5	1.5
ENTER	Y	1.5	1	1.5		1.5		1.5	1.5
ENTER	X	1.5	0	100	x	150	x	225	x 337.5
ENTER			0						
1			2		3		4		5

.1
.2
.3
.4
.5

()

X /

:x / X /

C .1

← .2

() CLEAR 1 (1x) .3

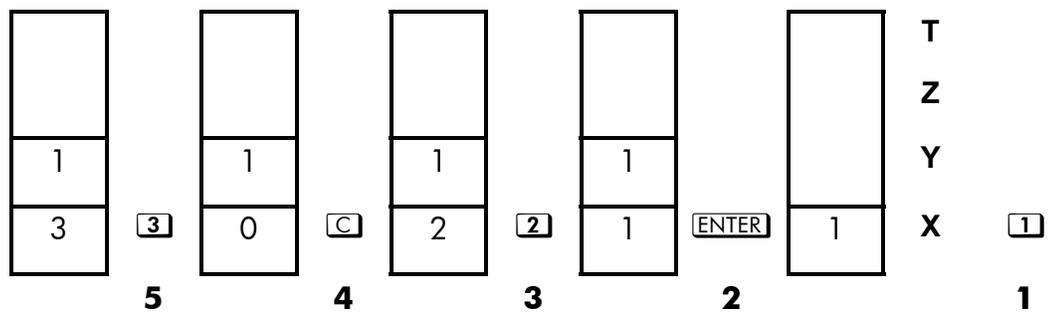
Z Y X / CLEAR 5 (5STK) .4

.T

2 1

3 1

:



. / .1
 .X / .2
 .X .3
 . x / .4
 .() x .5

LAST X

X : / LAST X
 /) . /
 .X [LAST x] .(√x
 : "last x"
 .1
 .2
 . LAST X x / B

LAST X

LAST x

.

C

...

:

$$\ln 4.7839 \times (3.879 \times 10^5)$$

!

e^x

LAST x √x

(nCr y^x +)

LAST x

(x)

LAST x

.1

LAST

.2

: .X

LAST x

▪

▪

LAST x

.

/

C

)

:

$$304 = 19 \times 16$$

:

:

:

:

[↩] LASTx [+]
 [↩] LASTx [x]
 [1] [6] [↩] LASTx [x]
 [↩] LASTx [÷] [1] [9] [x]

[1] [6] [ENTER] [1]
 [9] [-]
 [1] [5] [ENTER] [1]
 [9] [x]
 [1] [6] [ENTER] [1]
 [8] [x]

LAST X

()

[↩] LASTx

X

[↩] LASTx

/

:

$$\frac{96.704 + 52.3947}{52.3947}$$

	T	t		t		t
	Z	z		z		t
	Y	96.704 0	5 2	96.704 0		z
9 6 . 7 0 4 ENTER	X	96.704 0	. 3 9 4 7	52.394 7	+	149.09 87
	LAST X	/		/	+	52.394 7

	T	t		t
	Z	z		t
	Y	149.09 87		z
→ LASTx	X	52.394 7	÷	2.8457
	LAST X	52.394 7		52.394 7

:	:	:
	96.7040	9 6 . 7 0 4 ENTER
	149.0987	5 2 . 3 9 4 7 +
+	52.3947	→ LASTx
	2.8457	÷

8.7) Sirius

(

4.3) Rigel Centaurus

(9.5×10^{15})

c . (

4.3 yr \times (9.5×10^{15} m/yr) :Rigel Centaurus

8.7 yr \times (9.5×10^{15} m/yr) :Sirius

4.3000 **4** **.** **3** **ENTER**

Rigel
 . Centaurus
 . c -9.5E15 9.5E1
5
 4.0850E16 x
 . R. Centaurus
 . c 9.5000E15 8.7E1
LASTx
 8.2650E16 x
 .Sirius

RPN /

RPN /

.

.7×(3+12)

... (3+12)

15=(3+12)

:7

...

105=7×(15)

. /

HP 35s

:

:

:

15.0000 12ENTER3+

:

ENTER

:
 / 105.0000 **7** **x**

ENTER

(**-** **+**)

:(10+2)÷2

: (10+3) 13.0000 **3** **ENTER** **1** **0** **+**

13 2 0.1538 **2** **x↔y** **÷**

.13÷2 :

:[2-(3×7)+14]÷4

: (3×7) 21.0000 **7** **ENTER** **3** **x**

/ 33.0000 **1** **4** **+** **2** **-**

33 4 33.0000 **4** **x↔y**

13÷4 0.1212 **÷**

(4+3)

(6+5)×(4+3)

(6+5)

HP 35s

:	:	:
(4+3)	7.0000	3 ENTER 4 +
(6+5)	11.0000	5 ENTER 6 +
	77.0000	x

$$\frac{\sqrt{(16.3805 \times 5)}}{0.05} = 181.0000$$

1 **6** **.** **3** **8** **0** **5** **ENTER** **5** **x** **√x** **.** **0** **5** **÷**

$$\sqrt{[(2+3) \times (4+5)]} + \sqrt{[(6+7) \times (8+9)]} = 21.5743$$

2 **ENTER** **3** **+** **4** **ENTER** **5** **+** **x** **√x** **6** **ENTER** **7** **+** **8** **ENTER** **9** **+** **x** **√x** **+**

$$(10 - 5) \div [(17 - 12) \times 4] = 0.2500$$

1 **7** **ENTER** **1** **2** **-** **4** **x** **1** **0** **ENTER** **5** **-** **x↔y** **÷**

1 **0** **ENTER** **5** **-** **1** **7** **ENTER** **1** **2** **-** **4** **x** **÷**

:

$$4 \div [14 + (7 \times 3) - 2]$$

(3x7)

7 ENTER 3 x 14 + 2 - 4 x↔y ÷

:

4 ENTER 14 ENTER 7 ENTER 3 x + 2 - ÷

...

x↔y

.(÷ -)

:

()

▪

▪

)

()

.(



:	:	:
14 4	14.0000	4 ENTER 1 4 ENTER
.	-3	7 ENTER 3
.	21.0000	x
.	35.0000	+
.	33.0000	2 -
.	0.1212	÷

: RPN

$$(14 + 12) \times (18 - 12) \div (9 - 7) = 78.0000$$

1 **4** **ENTER** **1** **2** **+** **1** **8** **ENTER** **1** **2** **-** **x** **9** **ENTER** **7** **-** **÷**

$$23^2 - (13 \times 9) + 1/7 = 412.1429$$

2 **3** **↵** **x²** **1** **3** **ENTER** **9** **x** **-** **7** **1/x** **+**

$$\sqrt{(5.4 \times 0.8) \div (12.5 - 0.7^3)} = 0.5961$$

:

5 . 4 ENTER . 8 x . 7 ENTER 3 y^x 1 2 . 5 x \leftrightarrow y - \div \sqrt{x}

5 . 4 ENTER . 8 x 1 2 . 5 ENTER . 7 ENTER 3 y^x - \div \sqrt{x}

:

$$\sqrt{\frac{8.33 \times (4 - 5.2) \div [(8.33 - 7.46) \times 0.32]}{4.3 \times (3.15 - 2.75) - (1.71 \times 2.0)}} = 4.5728$$

:

4 ENTER 5 . 2 - 8 . 3 3 x \rightarrow LAST x 7 . 4 6 -
 0 . 3 2 x \div 3 . 1 5 ENTER 2 . 7 5 - 4 . 3 x
 1 . 7 1 ENTER 2 . 0 1 x - \div \sqrt{x}

3

/

(30KB) 30 HP 35s

A

C "Bank" B

. Z
)
(
:

. ALG RPN A 3

: : :

) RPN **MODE** **5** (5 RPN)

.(

.(3) 0.0000 **3**

3-

STO

STO-

/

.A...Z

A 3 0.0000 **A**

3.0000

) ALG **MODE** **4** (4 ALG)

3.0000

.(

3 **A** **3** **STO** **A**

.A...Z /

A 3 **3** **A** 3.00 **ENTER**

00

.2

/

ALG

1+3÷4 Δ 1. 1 + 3 ÷ 4
7500 \rightarrow STO G ENTER

(A...Z) /

T Z Y X T Z Y X

Vectors

(RCL) Recall (\rightarrow STO) Store /

HP

.35s

: (X)

. ENTER / \rightarrow STO

:

. ENTER / RCL

.A (6.0221×10^{23})

: : :
6.0221E23. 6 0 2 2 1
E 2 3

"A" 6.0221E23 A R- [R] STO A

6.0221E23 A R [ENTER]
6.0221E23

.A

/ [C]

A...Z **A..Z** [RCL]

A R= [A] [ENTER]
6.0221E23

.Recall /
ALG RPN / /

G 1,75
ALG HP35S

[RCL] G [RCL] G [ENTER]
1.7500

A...Z

.1 /

Recall ALG
1,75 G 15-2×G /

15-2×G [1] [5] [-] [2] [x]
11.5000 [RCL] G [ENTER]

.G RPN

: : :
.RPN (MODE) 5 (5RPN)

(RCL) RPN RCL - (RCL)

(ENTER) 1.7500 (G)
1.7500

/

.x (VIEW) VIEW /
VIEW =
VIEW / (VIEW) (VIEW) (VIEW) (VIEW)
VIEW / (VIEW) (VIEW)

MEM /

(MEM) MEMORY /

1. VAR 2. PGM
nnn mm.mmm

nnn Bytes mm,mmm

.14

VAR /

Z A

(MEM) 1 (1VAR) VAR

:

.E 5 D 4 C 3

.RPN / VAR /

:

/ CLEAR 2 (2VAR S)

D 4 C 3 4 3 STO C
5 4 STO D
5 5 STO E

. VAR / C= MEM 1 (1VAR)

0000003

^ v

↓ ↑

▼ ▲

/

/

. VAR /

D= 4 v

.D=4 :

E= 5 v

.E=5

/

VAR /

.E .

VAR E C= 3 CLEAR

C

C

x C=3 5 ENTER

E=5) 5

.y (

. C ← VAR /
/ /
. CLEAR 2 (2VARS)
"ALL VARS = 0" VAR /

< >

x



STO ÷ STO × STO - STO +
X

x {÷, ×, -, +} =

. (3) X A(15)
3 A=12 . STO +

A 15

A 12

15-3 :

.A-x

T	t
Z	z
Y	y
X	3

STO - A

T	t
Z	z
Y	y
X	3

X . X / X ✓

RCL ÷ RCL x RCL - RCL +

(3) X

.A 12 x=0,25 .RCL ÷ .A(12)

() RCL + :

. () + A RCL

A 12

A 12

T	t
Z	z
Y	y
X	3

RCL ÷ A

T	t
Z	z
Y	y
X	0.25

21÷3 :
.12÷ x



1

.3 2 1

F E D

:

1.0000 [1] [R] [STO] [D]
 2.0000 [2] [R] [STO] [E]
 3.0000 [3] [R] [STO] [F]

E D 1
 . F
 D

[1] [R] [STO]
 [+ D] [R] [STO]
 1.0000 [+ E] [R] [STO]
 [+ F]

D= [VIEW] [D]
 2.0000

E= [VIEW] [E]
 3.0000

F= [VIEW] [F]
 4.0000

1.0000 [←]

X / .VIEW

D 3

4 3 2

F E F D

F E

:

إحتساب $3 \div D$

1.5000 [3] [RCL] [÷] [D]

$3 \div D \times E$

4.5000 [RCL] [×] [E]

$3 \div D \times E + F$

8.5000 [RCL] [+] [F]

X

(X) x [←] [x²]
 .T Z Y

```

:
.A 12 12.0000 1 2 STO
      x 3. 3
.A X 12.0000 < X$ A
.A X 3.0000 < X$ A

```

A	12	A	3
T	t	T	t
Z	z	Z	z
Y	y	Y	y
X	3	X	12

< X\$ A

"J" "I"

```

.J I :
J I
(J) 0 (I) .(J) (I) /
      /
      . 0 / "
      .14 /

```


4

/ .(ABS)

:

( x^y y^x) /

.Hyperbolic

.(/) /

)
(
. RPN / .2 1
HP 35s

ENTER

-



:	:
$\boxed{\rightarrow}$ LN	(e /) /
$\boxed{\leftarrow}$ LOG	(10 /)
$\boxed{\rightarrow}$ e^x	/
$\boxed{\leftarrow}$ 10^x	(/)

$\boxed{\leftarrow}$ INTG 3 (3Rmdr) $\boxed{\leftarrow}$ INTG 2 (2INT÷)



.1
.2 ENTER
.3 (ENTER)
.4 /

:

9 ÷ 58

: : :

6.0000 $\boxed{5}$ $\boxed{8}$ ENTER $\boxed{9}$ $\boxed{\leftarrow}$
INTG 2 (2INT÷)
4.0000 $\boxed{5}$ $\boxed{8}$ ENTER $\boxed{9}$ $\boxed{\leftarrow}$
INTG 3 (3Rmdr)

x ENTER y x () y RPN /
.(x y<0 . x y>0) . y^x



:	:	:
225.0000	1 5 □ x²	15 ²
1,000,000.0000	6 □ 10^x	10 ⁶
625.0000	5 ENTER 4 y^x	5 ⁴
0.3789	2 ENTER 1 □ 4 +/- y^x	2 ^{-1.4}
-2.7440	1 □ 4 +/- ENTER 3 y^x	(-1.4) ³

x **ENTER** y (y xth) y x RPN
. x y<0 **□** **y^y**

:	:	:
14.0000	1 9 6 □ √x	√196
-5.0000	1 2 5 +/- ENTER 3 □ y^y	³ √-125
5.0000	6 2 5 ENTER 4 y^y	⁴ √625
2.0000	□ 3 7 8 9 3 ENTER 1 □ y^y	- ^{1.4} √.37893

π

.X π 12 **□** **π**

/ **□** **π** ()

. **ENTER** , π

. π π

/

.(" ")

$$\text{grads } 400 = \text{radians } \pi \cdot 2 = 360$$

MODE

/

:

none	hexagesimal ()	DEG
RAD	radian	RAD
GRAD	gradient	GRAD

:

x



:	:	:
SIN	Sine of x.	.x
COS	Cosine of x.	.x
TAN	Tangent of x.	.x /
ASIN	Arc sine of x.	.x
ACOS	Arc cosine of x.	.x
ATAN	Arc tangent of x.	.x /

 $\pi /$
 $\cdot 15$
 π
 -2.0676×10^{-13}


.(	)	128.57°	(5/7)π radians	:
				:
RAD	Radians			MODE 2 (2RAD)
		5/7	0.7143	· 5 · 7 ENTER
		(5/7)π	-0.6235	↵ π × COS
)			-0.6235	MODE 1 (1DEG)
		128.57°	-0.6235	1 2 8 · 5 7
		(5/7)π		COS

:

θ

$$\theta = \arctan (y/x).$$

DIVIDE BY θ :

y/x $x = 0$

Hyperbolic

: x

:	:
$\left[\leftarrow \right]$ $\left[\text{HYP} \right]$ $\left[\text{SIN} \right]$	Hyperbolic sine of x (SINH). x
$\left[\leftarrow \right]$ $\left[\text{HYP} \right]$ $\left[\text{COS} \right]$	Hyperbolic cosine of x (COSH). x
$\left[\leftarrow \right]$ $\left[\text{HYP} \right]$ $\left[\text{TAN} \right]$	Hyperbolic tangent of x (TANH). x /
$\left[\leftarrow \right]$ $\left[\text{HYP} \right]$ $\left[\leftarrow \right]$ $\left[\text{ASIN} \right]$	Hyperbolic arc sine of x (ASINH). x
$\left[\leftarrow \right]$ $\left[\text{HYP} \right]$ $\left[\leftarrow \right]$ $\left[\text{ACOS} \right]$	Hyperbolic arc cosine of x (ACOSH). x
$\left[\leftarrow \right]$ $\left[\text{HYP} \right]$ $\left[\leftarrow \right]$ $\left[\text{ATAN} \right]$	Hyperbolic arc tangent of x (ATANH). x /

(Y) ($\left[\div \right]$ $\left[\times \right]$)
 .(X



:	:
y $\left[\text{ENTER} \right]$ x $\left[ \leftarrow \right]$ $\left[ \% \right]$	.y %x
y $\left[\text{ENTER} \right]$ x $\left[\leftarrow \right]$ $\left[\% \text{CHG} \right]$	(y ≠ 0) . x y

:

.\$15,76

% 6

FIX 2

$\left[\leftarrow \right]$ $\left[\text{DISPLAY} \right]$ $\left[1 \right]$ (1FIX)
 $\left[2 \right]$
 15.76 $\left[1 \right]$ $\left[5 \right]$ $\left[\cdot \right]$ $\left[7 \right]$ $\left[6 \right]$ $\left[\text{ENTER} \right]$
 0.95 $\left[6 \right]$ $\left[\leftarrow \right]$ $\left[\% \right]$
 % 6 +) $\left[+ \right]$
 16.71
 .(

.\$16,12

\$15,76

/

:

:

:

%2,2

16.12 [1][6][.][1][2] ENTER

-2.23 [1][5][.][7][6] [←]

[%CHG]

.FIX 4

-2.2333 [←] DISPLAY [1] (1FIX)

[4]

:%CHG

:



CONST

299792458 m s ⁻¹	Speed of light in vacuum		c
9.80665 m s ⁻²	Standard acceleration of gravity		g
6.673×10 ⁻¹¹ m ³ kg ⁻¹ s ⁻²	Newtonian constant of gravitation		G
0.022413996 m ³ mol ⁻¹	Molar volume of ideal gas		V _m
6.02214199×10 ²³ mol ⁻¹	Avogadro constant		N _A
10973731.5685 m ⁻¹	Rydberg constant		R _∞
1.602176462×10 ⁻¹⁹ C	Elementary charge		eV
9.10938188×10 ⁻³¹ kg	Electron mass		m _e
1.67262158×10 ⁻²⁷ kg	Proton mass		m _p
1.67492716×10 ⁻²⁷ kg	Neutron mass		m _n
1.88353109×10 ⁻²⁸ kg	Muon mass	.Muon	m _μ
1.3806503×10 ⁻²³ J K ⁻¹	Boltzmann constant		k
6.62606876×10 ⁻³⁴ J s	Planck constant		h
1.054571596×10 ⁻³⁴ J s	Planck constant over 2 pi	.pi 2	$\frac{h}{2\pi}$
2.067833636×10 ⁻¹⁵ Wb	Magnetic flux quantum		φ ₀
5.291772083×10 ⁻¹¹ m	Bohr radius		a ₀
8.854187817×10 ⁻¹² F m ⁻¹	Electric constant		ε ₀
8.314472 J mol ⁻¹ K ⁻¹	Molar gas constant		R
96485.3415 C mol ⁻¹	Faraday constant		F
1.66053873×10 ⁻²⁷ kg	Atomic mass constant		u
1.2566370614×10 ⁻⁶ NA ⁻²	Magnetic constant		μ ₀
9.27400899×10 ⁻²⁴ J T ⁻¹	Bohr magneton		μ _B
5.05078317×10 ⁻²⁷ J T ⁻¹	Nuclear magneton		μ _N
1.410606633×10 ⁻²⁶ J T ⁻¹	Proton magnetic moment		μ _p
-9.28476362×10 ⁻²⁴ J T ⁻¹	Electron magnetic moment		μ _e
-9.662364×10 ⁻²⁷ J T ⁻¹	Neutron magnetic moment		μ _n
-4.49044813×10 ⁻²⁶ J T ⁻¹	Muon magnetic moment		μ _μ

2.817940285×10 ⁻¹⁵ m	Classical electron radius		r_e
376.730313461 Ω	Characteristic impedance of vacuum		Z_0
2.426310215×10 ⁻¹² m	Compton wavelength		λ_C
1.319590898×10 ⁻¹⁵ m	Neutron Compton wavelength		λ_{cN}
1.321409847×10 ⁻¹⁵ m	Proton Compton wavelength		λ_{cP}
7.297352533×10 ⁻³	Fine structure constant		α
5.6704×10 ⁻⁸ W m ⁻² K ⁻⁴	Stefan–Boltzmann constant		σ
273.15	Celsius temperature		t
101325 Pa	Standard atmosphere		$a_t m$
267522212 s ⁻¹ T ⁻¹	Proton gyromagnetic ratio		γ_P
374177107×10 ⁻¹⁶ W m ²	First radiation constant		C_1
0.014387752 m K	Second radiation constant		C_2
7.748091696×10 ⁻⁵ S	Conductance quantum		G_0
2.71828182846	The base number of natural logarithm(natural constant)		e
Peter J.Mohr and Barry N.Taylor, CODATA Recommended Values of the Fundamental Physical Constants: 1998, Journal of Physical and Chemical Reference Data, Vol.28, No.6, 1999 and Reviews of Modern Physics, Vol.72, No.2, 2000.			:

```

:
Cursor .1
[CONST] .2
[CONST] ) [v] [^] [<] [>] .3
[ENTER] (

```

HP 35s

gradients radians

hexagesimal

kg/lb cm/in

Shift

Shift



ALG

.RPN

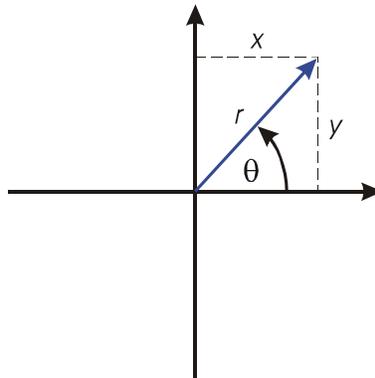
/

π $-\pi$ θ
 180° -180°

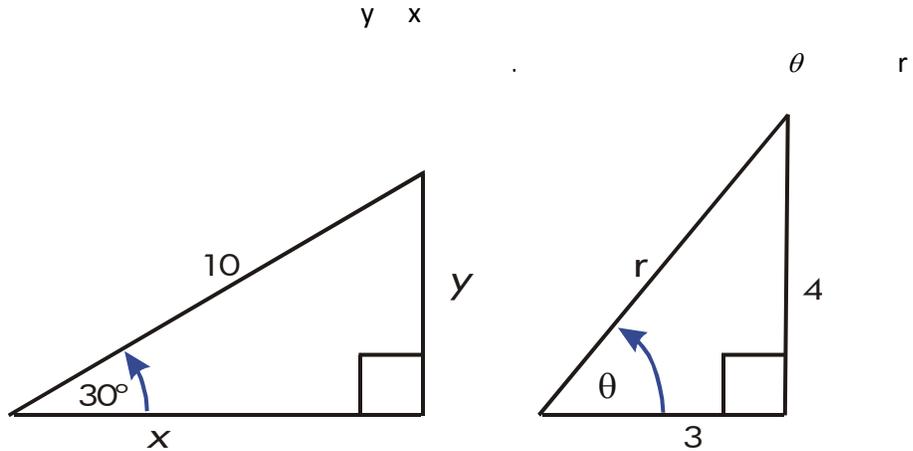
(x,y)
 θ

(r,θ)

.grads 200 -200 radians



) .RPN $\boxed{00}$ (10r \boxed{B} $\boxed{\Delta}$) $\boxed{9}$ (9×RPN) $\boxed{\leftarrow}$ DISPLAY $\boxed{9}$.1
 ($\boxed{0}$ $\boxed{1}$ (1i×+y RPN) ,ALG
 (r $\boxed{\rightarrow}$ $\boxed{\theta}$ a x \boxed{i} y, x $\boxed{+}$ y \boxed{i}) .2
 $\boxed{\text{ENTER}}$.3

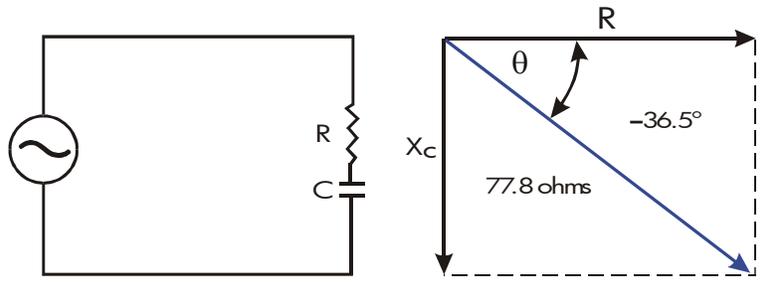


: : :
 /
 .
 MODE $\boxed{1}$ (1DEG)
 $\boxed{\leftarrow}$ DISPLAY $\boxed{9}$
 (9×RPN)
 xiy () r θ a 8.6603 RPN 5.000 $\boxed{1}$ $\boxed{0}$ $\boxed{\rightarrow}$ $\boxed{\theta}$ $\boxed{3}$ $\boxed{0}$
 .() $\boxed{0}$ $\boxed{\text{ENTER}}$

$\frac{10.0000030.0000}{(10r B \Delta)}$ [DISPLAY] [0]
 $5.0000053.1301$ [3] [i] [4] [ENTER]
 r θ a () xiy .()

ohms 77,8 RC P.C. Bord
 capacitive reactance X_C R . 36,5

X_C ,y r ohms R x . θ . ohms



: : :
 $\frac{77.80 - 36.5}{62.5401}$ [MODE] [1] (1 DEG)
 $\frac{77.80 - 36.5}{62.5401}$ [DISPLAY] [9]
 $\frac{77.80 - 36.5}{62.5401}$ (9x [RPN])
 $\frac{77.80 - 36.5}{62.5401}$ [7] [7] [-] [8] [2] [0]
 $\frac{77.80 - 36.5}{62.5401}$ [3] [6] [-] [5] [+/-]
 ohms
 R x 62.5401 [RPN] -46.27 [ENTER]
 .ohms 72
 ohms y
 reactance, X_C

hexagesimal

/

HP 35s

D.MMSSss

hexagesimal

D.ddd...

MM

ddd...

D

ss

SS

:

/



.1

HMS

/

HMS

.2

/

/

:

FIX 6

7/1

:

:

:

.FIX 6

DISPLAY (1FIX)

7/1

0.000000
0 1/7

34,29

8

0.000000
0.083429

HMS

.FIX 4

0.000000
0.0834

DISPLAY (1FIX)



x

radians

.radians

x

:radians

.π/6 radians 30
 : : :
 .radians 0.0000 3 0
 30-
 0.0000 ↵ →RAD
 0.5236

0.5236
 .π/6

HP 35s
 →kg, →lb, →°C, →°F, →cm, →in, →l, →gal, →MILE, →KM

:	:	:	:
0.4536 (kilograms)	()	1 ↵ →kg	kg 1 lb
2.2046 (pounds)	()	1 ↵ →lb	lb 1 kg
0.0000 (°C)	()	3 2 ↵ →°C	°C 32 °F
212.0000 (°F)	()	1 0 0 ↵ →°F	°F 100 °C
2.5400 (centimeters)	()	1 ↵ →cm	cm 1 in
39.3701 (inches)	()	1 0 0 ↵ →in	in 100 cm
3.7854 (liters)	()	1 ↵ →l	l 1 gal
0.2642 (gallons)	()	1 ↵ →gal	gal 1 l
1.6093(KMS)	()	1 ↵ →KM	KM 1 MILE
0.6214 (MILES)	(/)	1 ↵ →MILE	MILE 1 KM

/

Factorial / ✓

x ($0 \leq x \leq 253$)

/

($\Sigma+$) \rightarrow $!$

Gamma ✓

$x!$ \rightarrow $!$ $(x - 1)$ $\Gamma(x)$ x

x $\Gamma(x + 1)$

/

/

/ ✓

r \rightarrow nCr n r n /

/

/ ✓

r \rightarrow nPr n r n /

/

/ ✓

\rightarrow $SEED$ / x

/ ✓

\rightarrow $RAND$ $0 < x < 1$ /

Knuth

The Art of Computer Programming, vol. 2, *Seminumerical Algorithms*, London: Addison Wesley, 1981.

RANDOM

.SEED

10 14

24
6-

2 **4** ENTER **6**

134,596.0000

↵ nCr

6

14
6-

1 **4** ENTER **6**

6

3,003.0000

↵ nCr

134,596.0000

x↔y

.X

0.0223

÷

/

/

/



) INTG (6IP)

x
. (14.0000 14.2300

/



) INTG (5FP)

x
. (0.2300 14.2300

. ABS

x

:

r rθa / .1

$\sqrt{x^2 + y^2}$ xiy / .2

$\sqrt{A_1^2 + A_2^2 + \dots + A_n^2} = |A|$ [A1,A2,A3, ...An] .3

:

. ARG

a rθa .1

Atan(y/x) xiy .2



. INTG (1SGN)

x

x
1.0000

0.0000

-1.0000



. [INTG] [4] (4INTG)

:

/

:	:	:
2.0000	[2] [.] [4] [7] [INTG] [6] (6IP)	2,47
0.4700	[2] [.] [4] [7] [INTG] [5] (5FP)	2,47
7.0000	[7] [+/-] [ABS]	70
1.0000	[9] [INTG] [1] (1SGN)	9
-6.0000	[5] [.] [3] [+/-] [INTG] [4] (4INTG)	.5,3 -

) . x ([RND])
 . RND / 5 .(12

5

1

8/5 2 3 8 8/3 2
0 5 8 0 5 8

FDISP

RDN

RPN /

) - .(/ /

:

1,5 1 1/2 FDISP
1 5 ENTER

.4/3 1 1 3/4 1 3 4 ENTER

x 1.7500 FDISP

x 1 3/4 FDISP

.(") .



/

-

). 12

.(

/

/

"

"

).

.(

.(/ /)

.4095 /

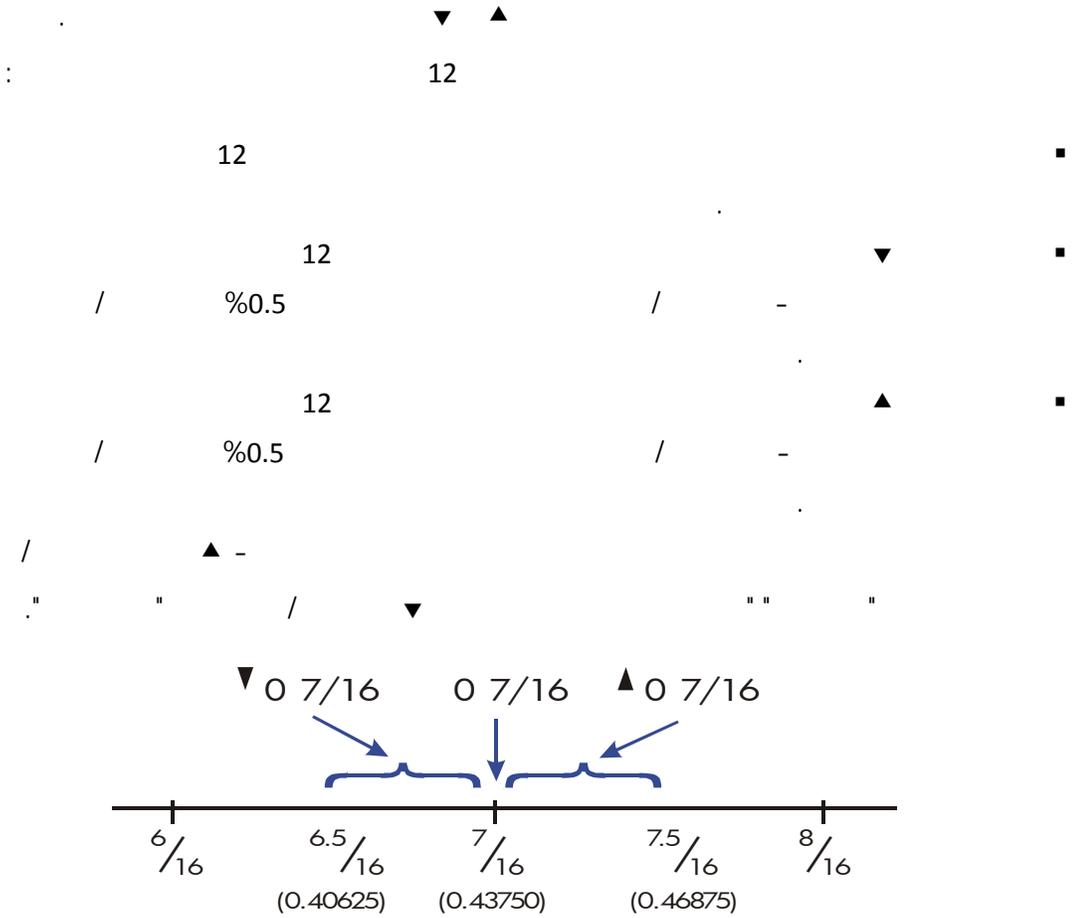
-
-
-

:

▼ ▲

. 12

$2 \frac{3}{8}$	2.3750000000	$2 \frac{3}{8}$
$14 \frac{15}{32}$	14.4687500000	$14 \frac{15}{32}$
$4 \frac{1}{2}$	4.5000000000	$\frac{54}{12}$
$9 \frac{3}{5}$	9.6000000000	$6 \frac{18}{5}$
$2 \frac{5}{6}$	▼ 2.8333333333	$\frac{34}{12}$
$0 \frac{7}{3823}$	▲ 0.00183105469	$\frac{15}{8192}$
12349793	12349793.0000	$12345678 \frac{12345}{3}$
$16 \frac{1}{4095}$	16.0001831055	$16 \frac{3}{16384}$



") .
 / 5 .("
 " " 3.3333/5 0 3/5▲ 2/3
 " / -0 3/5▲ -2/3 .3/5
 .3 "
 2 2/3▲ 2 2/3
 12
 - 12
 . 12

/
 /
 :
 / ■
 ■
 /
 /
 /
 / c ab/c
 - / / c
 .() /

/   .4095 /
 4095    X /c
   4095 /
 .X /c
 .LAST X


   
 .SHOW 

3025 /

: : :
 /     


.3025

0    
 1202604  888/31

./

0 
 25

./

  1 / ALG / .1
 /

: / 9 8	: /
—	/

/ 9 8 /

.(14 /) .

.8 / press **1**(1SF) / .1
2(2CF) / .2

C / **3**(3FS?)
 . NO YES **←**

.π /
) / 8 / /
 .(

: /c **4 0 9 5 ←**
 / **↵**

. / 0 **← π**
 .8 / 3 16/113

.8 / 0 **← FLAGS 1**(1SF)
 / 3 116/819 **8**

819*5=4095

/ 9 0 0/4095 **← FLAGS 1**(1SF)
 / 3 580/4095 **9**

/ 0 **← FLAGS 2**(2CF)
 .() / 3 16/113 **8 ← FLAGS 2**(2CF) **9**

/c

/

2.77

2.77		/
/c= 16	/c= 4095	
2 10/13▲ (2.7692)	2 77/100 (2.7700)	/
2 3/4▲ (2.7500)	2 1051/1365▲ (2.7699)	
2 12/16▲ (2.7500)	2 3153/4095▲ (2.7699)	

/c

/

16

					*	/
2 ¹⁶ /25	2.9999	2 2/3	2.5	2		
2 9/14▼	3▼	2 2/3▲	2 1/2	2		
2 5/8▲	3▼	2 11/16▼	2 1/2	2		/
2 10/16▲	3 0/16▼	2 11/16▼	2 8/16	2 0/16		/
					16	/c *

X

RND

/

/ /c

/

. 9 8

/

.(" ") .

/

RND

:

56 3/4

1/16

:	:	:
.8 /		← FLAGS ENTER 8
/		1 6 ← /C
) . 1/16		
9 8 /		
(
.D	56 3/4	5 6 . 3 . 4
		← STO D
9 7/16	9 7/16▲	6 ÷
	9 7/16	← RND
	56 5/8	6 x
	-0 1/8	RCL D -
.8 /	-0 1/8	← FLAGS 2 (2CF) 8
/	-0.1250	← FDISP



/

()

/

INPUT

()

/c

.14

"

/

"

.9 8 7

/

14 13

6

: HP 35s

.()
.(7)
.(8) .

-
-
-

:

$$V = .25 \pi d^2 l$$

. l d

16

\cdot **2** **5** **ENTER** π \times **2** \cdot **5** \square x^2 \times **1** **6** \times

.(78,5398) (2 1/2) 2,5

- " " HP 35s

:

/

```

:                               :                               :
/                               EQN□LIST□TOP                 [EQN]

.EQN                            .2

[RCL]                            [RCL]

A..Z

.V / [RCL] [V]                 V= [V] [←] [=]

                                V= 0.25 [.] [2] [5]

                                " - "

                                [X]                 V=0.25×π× [X] [←] [π] [X]

.^ / [yx]                 V=0.25×π×D^2 [RCL] [D] [yx] [2]

                                V=0.25×π×D^2×L [X] [RCL] [L]
                                V=0.25×π×D^2×L [ENTER]

                                CK=49CA [←] [SHOW]
                                LN=14

"                               " )

.(

: (V )

:                               :                               :
/                               D? [ENTER]
                                value

D /
D

2 1/2 D? [2] [.] [1] [.] [2]
2 1/2-

.L / D L? [R/S]
L value

V L V= [1] [6] [R/S]
.V 78.5398

```

.2

<p>.</p> <p>/</p> <p>.</p> <p>.</p> <p>" ") XEQ /</p> <p>.(</p> <p>" = " " _ " " = "</p> <p>.(7)</p> <p>)</p> <p>.(8</p> <p>.</p> <p>.</p> <p>.</p> <p>)</p> <p>.() (</p> <p>/</p> <p>.</p> <p>/</p>	<p>EQN</p> <p>ENTER</p> <p>XEQ</p> <p>SOLVE</p> <p>↩ /</p> <p>←</p> <p>< or ></p> <p>↩ < or ↩ ></p> <p>^ or v</p> <p>↩ ^ or ↩ v</p> <p>↩ SHOW</p> <p>↩ UNDO</p> <p>C</p>
---	--

.13



:
 -
 / .1
 /
 / EQN EQN .2
 - / .3
 [←] UNDO [←]
 [ENTER] .4
) . /
 .(/ [C]
 - ()

.(J) (l) Z A :
 / " (J) (l))
 .(14 " /
 [RCL] [RCL]
 A...Z

8 2

/

/

ALL

/

16

12



"

"

" G

HP 35s

"

:

" ÷ " " + "

■

" LN " " COS "

■

-

/

/



■

(" / ") . ()
 : :
 $r = 2 \times c \times (t - a) + 25$
 : : :
 $V = 0.25 \times \pi \times D^2 \times L$ [EQN]
 R = _ [RCL] [R] [←] [=]
 R = 2 _ [2]
 $R = 2 \times C \times$ [×] [RCL] [C] [×]
 $R = 2 \times C \times ($ [(]
 /
 /
 $= 2 \times C \times (T - A) + 25$ [RCL] [T] [-] [RCL] [A]
 [] [+] [2] [5]
 $R = 2 \times C \times (T - A) + 25$ [ENTER]
 CK=9E5F [←] [SHOW]
 LN=14
 / [C]

(/)
 3*3 lin. Solve 2*2 lin. solve
 :
 . EQN / [EQN] .1
 :

EQN LIST TOP ■

.() ■

⏏ ⏏ .2

" " EQN LIST TOP " "

:

14 / → / 14 / .1

⏏ / ⏏ ⏏ .2

⏏ ⏏

/ ← → /

2 ⏏ ⏏ ⏏ ⏏ .3

:

2

/ :

:

R=2xCx(T-A)+25 EQN

R=2xCx(T-A)+25 ⏏

=2xCx(T-A)+25_ ENTER ⏏

/

C

/

/

/

. 3*3 lin. Solve 2*2 lin. solve /

. 3*3 lin. Solve /

:

.1

.2

ENTER

.3

:

.1

.2

.3

:

.1

.2

.3

:

.1

.2

.3

:

.1

.2

.3

2

CLR

3(3EQN)

EQN /

CLEAR

(Y) ENTER

EQN? Y N

25

R=2xCx(T-A)+25

EQN

=2xCx(T-A)+25_

<

.25

=2xCxCOS(T-A)_

< < <

R=2xCx(T-A)

ENTER

C

HP 35s

" = "

/

$x^2 + y^2 = r^2$

" = "

$A = 0.5 \times b \times h$

$x^3 + 1$

" = "



)
. (8 7

" = " /
" = "

XEQ ENTER :

HP 35s

:

/ XEQ ■

/ ENTER ■

ENTER

XEQ	ENTER		
	$\frac{g(x) - f(x)}{x^2 + y^2 - r^2}$	$g(x) = f(x)$: /
		$x^2 + y^2 = r^2$:
$y = f(x)$ $A = 0.5 \times b \times h$	$f(x) *$ $0.5 \times b \times h *$	$y = f(x)$:
		$A = 0.5 \times b \times h$:
	$f(x)$ $x^3 + 1$	$f(x)$:
		$x^3 + 1$:
	.	A	*

:
 ") . .1
 /) . XEQ ENTER .2
 : / .3
 R/S /
 ") R/S
 .2 INTERRUPTED R/S C
 - /
 .x
 ENTER
) ENTER
 .(- ENTER

X

ENTER

-

/

.X

XEQ

ENTER

:

20

63

:

:

:

$$V = 0.25 \times \pi \times D^2 \times L$$

EQN

(\wedge as required)

D?
2.5

ENTER

.V

.52

D

L
.16

D

L?
16

3 5 R/S

L

V

V=
19,242,255.0033

2 0 x 1 0 0

0 ENTER

R/S

V

V

19.2423

\div 1 E 6

ENTER

(V)

XEQ

XEQ

.X

XEQ

:

5 35

:

:

:

$V = 0.25 \times \pi \times D^2 \times L$ [EQN]

V?
19,242,255.0033 [XEQ]

.D V D? [R/S]
35

.L D L? [3] [5] [.] [5]
20.000 [R/S]

L -553,705.7051 [R/S]

/ -

-0.5537 [÷] [1] [E] [6]
[ENTER]

-(D) (V)

/

X?2.5000

(J) (I)

.(14) .

[R/S]

■

.X
 .R/S
 2 y^x 5 ENTER R/S
 2
 . 2
 X
 /
 .R/S
 X
 .X
 RPN /
 ENTER
 .ALG /
 ENTER
 .C
 .C
 .C
 SHOW
 RPN /
 R/S
 .X

/
 :
 /
 /
 /
 /
 :

$(X+1)$	Parentheses	.	/
$SIN(X+1)$	Functions	.	/
X^3	Power (y^x)	.	/
$-A$	Unary Minus ($+/-$)	.	
$X \times Y, A \div B$	Multiply and Divide	.	
$P+Q, A-B$	Add and Subtract	.	
$B=C$	Equality	.	

/

:

$a \times (b^3) = c$	$A \times B^3 = C$
$(a \times b)^3 = c$	$(A \times B)^3 = C$
$a + (b/c) = 12$	$A + B \div C = 12$
$(a + b) / c = 12$	$(A + B) \div C = 12$
$[\%CHG((t + 12), (a - 6))]^2$	$\%CHG(T + 12, A - 6)^2$

" G

/

SQRT	SQ	ALOG	EXP	LOG	LN
!	ABS	RND	FP	IP	INV
		RMDR	IDIV	INTG	SGN
ATAN	ACOS	ASIN	TAN	COS	SIN
ATANH	ACOSH	ASINH	TANH	COSH	SINH
XROOT	%CHG	→HMS	HMS→	→RAD	→DEG
nPr	nCr	→KM	→MILE	→GAL	→L
→IN	→CM	→°F	→°C	→LB	→KG
		π	RAND	ARG	SEED
	\wedge	\div	\times	-	+
\bar{y}	\bar{X}	σy	σx	sy	sx
b	m	r	\hat{y}	\hat{X}	$\bar{X} w$
Σxy	Σy^2	Σx^2	Σy	Σx	n

/

. nPr nCr RMDR IDIV XROOT %CHG

.RPN /

XROOT

XROOT(3,-8)

-8[ENTER]3 $\sqrt[3]{y}$



RPN

Y X

.nCr(28,4)

28[ENTER]4 \leftarrow nCr



: /

%CHG(-X,-2)

%CHG(X,(-Y))

:

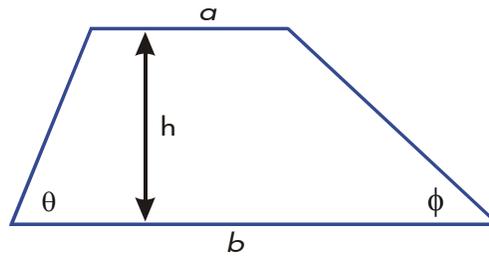
	RPN
SQ	x^2
SQRT	\sqrt{x}
EXP	e^x
ALOG	10^x
INV	$1/x$
XROOT	$\sqrt[x]{y}$
^	y^x
IDIV	INT÷

:

.

:

$$a + b + h \left(\frac{1}{\sin \theta} + \frac{1}{\sin \phi} \right) =$$



:HP 35s

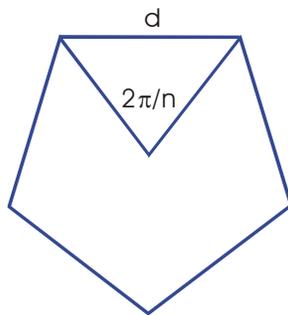
/

$$P = A + B + H \times (1 \div \text{SIN}(T) + 1 \div \text{SIN}(F))$$

$$\text{INV}(\text{SIN}(T)) \div \text{INV}(\text{SIN}(F))$$

$$P = A + B + H \times (\text{INV}(\text{SIN}(T)) + \text{INV}(\text{SIN}(F)))$$

$$\frac{1}{4} n d^2 \frac{\cos(\pi/n)}{\sin(\pi/n)} =$$



$$A = 0.25 \times N \times D^2 \times \cos(\pi/N) \div \sin(\pi/N)$$

EQN RCL A \leftarrow \leftarrow \leftarrow 2 5 \times RCL N \times RCL D y^x 2 \times
 COS \leftarrow π \div RCL N \div SIN \leftarrow π \div RCL N ENTER

()

SYNTAX ERROR

" / "

.(

" " HP 35s

.13

.()

/

\leftarrow SHOW

/

SHOW

:

/

:

:

:

$V=0.25 \times \pi \times D^2 \times L$

EQN

(\leftarrow as required)

CK=49CA
 LN=14

\leftarrow SHOW (hold)

$$V = 0.25 \times \pi \times D^2 \times L \quad (\text{release})$$

/



7

ENTER

6

SOLVE

$$x^2 - 3y = 10$$

x

.x

SOLVE

y

:

"

"

.y

SOLVE

Markup × Cost = Price

/

=

×

SOLVE

x

/

:

(

/

)

/

EQN

.1

6

SOLVE X

SOLVE

.2

.x

:

/

.3

R/S

▪

") R/S " (6 " " R/S C

Z Y X
 .() D

NO - / " " / " .ROOT FOUND
 " " " " .D " SOLVE

/

" SOLVE "

:

$$d = v_0 t + \frac{1}{2} g t^2$$

g t v_0 d

: /

```

:
/
CLEAR 3 (3ALL)
< (Y) ENTER
3*3 lin. solve EQN
EQN LIST TOP
RCL D [ ] = RCL
D=VxT+
V X RCL T +
←=VxT+0.5xGxT^2 0.5 X RCL G X
RCL T y^x 2
D=VxT+0.5xGxT^2 ENTER
CK=FB3C SHOW
LN=15

```

(32.2 ft/s² 9.8 m/s²) () g

```

/ 5
:D
:
SOLVE_ SOLVE
D V? value D
.V T? value 0 R/S
V .T T 5 G? value 5 R/S
.T .G
G 9,8 SOLVING 9 0 8 R/S
.D D= 122.5000

```

500 :

```

      :           :           :
      D=VxT+0.5xGxT^2  EQN
      .
      T           D?           [ ] SOLVE [ ] T
      .D         122.5
      D  500      V?           [ ] 0 [ ] 0 [ ] R/S
      .V         0
      .G         .V           G?           [ ] R/S
      .G         .V           9.8
      G  9.8      SOLVING      [ ] R/S
      .T         T=
      .T         10.1015
  
```

(moles)

$P \times V = N \times R \times T$
 R moles N () (N/m^2) P
 $K = ^\circ C + .Kelvins$) T (**8.314 J/mole-K**) 0.0821 liter-atm/mole-K

(273.1

```

      :           :           :
      /           Px_         [ ] EQN [ ] RCL [ ] P [ ] X
  
```

```

      [ ] RCL [ ] V [ ] [ ] =
      [ ] RCL [ ] N [ ] X
      PxV=NxRxT_
      PxV=NxRxT_ [ ] RCL [ ] R [ ] X [ ] RCL [ ] T
      [ ] ENTER
  
```

```

      CK=EDC8 [ ] [ ] SHOW
      LN=9
  
```

24 moles 0,005

/
:P

	:	:	:
.V	P	V? value	SOLVE P
.N	V 2	N? value	2 R/S
	N 0,005	R? value	0 0 0 5 R/S
	.R		
	R 0,0821	T? value	0 0 8 2 1 R/S
	.T		
(Kelvins	) T	T? 297.1000	2 4 + 2 7 3 .
	T 297,1	SOLVING	1 ENTER
	P	P= 0.0610	R/S
18	atmospheres 0,05		
	.(
	:	:	:
		$P \times V = N \times R \times T$	EQN
	N	P? 0.0610	SOLVE N
	.P		
P	0,05	V? 2.0000	0 0 5 R/S
	.V		
	V 5	R? 0.0821	5 R/S
	.R		
R		T? 297.1000	R/S
.T			
	) T	T? 291.1000	1 8 ENTER 2 7 3 ✓
	.(Kelvins		0 1 +
T	291,1	SOLVING	R/S
.N		N= 0.0105	
/		0.2929	2 8 x ✓
.N x 28			
		0586	RCL V ÷ ✓

() /

"3*3 lin. "2*2 lin. solve" (Ax+By=C, Dx+Ey=F) :

/

ENTER XEQ

.Solve"(Ax+By+Cz=D, Ex+Fy+Gz=H, lx+Jy+Kz=L)

A) 12 2*2

(F A) 6

SOLVE

z y x

2*2

y,x

3*3

(L

. z y x

.3*3

$$\left. \begin{array}{l} x+2y=5 \\ 3x+4y=11 \end{array} \right\}$$

:

:

:

/

3*3 lin. solve
EQN LIST TOP

EQN

EQN LIST TOP
2*2 lin. solve

.A

A? value

SOLVE

A 1
.B

B? value

1 R/S

B 2
.C

C? value

2 R/S

C 5
.D

D? value

5 R/S

D 3
.E

E? value

3 R/S

E 4
.F

F? value

4 R/S

F 11
.y x

X=
1.0000

1 R/S

.y

y=
2.0000

SOLVE

/

SOLVE

SOLVE

()

SOLVE

SOLVE

" = "

- [XEQ]

SOLVE

$P \times V - (N \times R \times T)$

" - "

/

(" SOLVE ")

NO ROOT FND

SOLVE

.SOLVE

D

/

SOLVE

:

() (/ [C]) X ■

([R↓]) Y ■ ✓

.X

Y X /

/

D ([R↓]) Z ■ ✓

) / NO ROOT FND
 .(() / ← C - - X
 Z . Y X
 .
 Z Y X ■
 X Z Y X ■

SOLVE /

"INTERRUPTED"

R/S C
 ← VIEW

SOLVE

() X ■

/

$$d = v_0 t + \frac{1}{2} g t^2$$

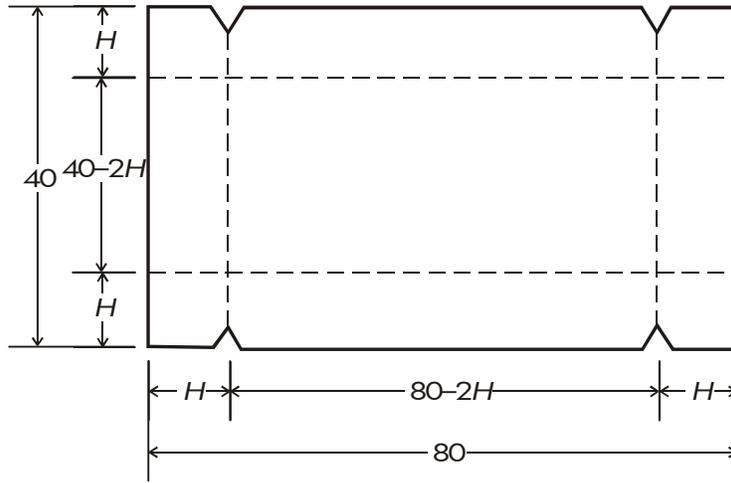
.t

() T
.D T
.T

$$y = t + \log x$$

(NO ROOT FND) $x \leq 0$

/ 80 40 :
) 7500
/ (



$$V = (40 - 2H) \times (80 - 2H) \times H$$

$$V = (80 - 2H) \times (40 - 2H) \times H$$

$$V = (40 - H) \times (20 - H) \times 4 \times H$$

```

:
/
V=_
EQN
RCL V [←] [=]

( ) 4 0 -
RCL H >
x ( ) 2 0 -
RCL H >
x 4 x RCL H
V=(40-H)
(40-H)x(20-H)
H)x(20-H)x4xH
V=(40-H)x(20-H)
ENTER

CK=49R4
LN=19
[←] SHOW

```

20

20 10

40

:

:

:

/

C

20

1 0 **STO** **H**
ENTER **2 0**

$V = (40 - H) \times (20 - H)$

EQN

.V

H

V?
value

SOLVE **H**

.V

7500

H=

15.0000

7 5 0 0 **R/S**

.H

.(Z)

(Y)

:

:

:

Y

15.0000

R↓



/

Z

0.0000

R↓



(20)

15 × 10 × 50

- 42,0256

40 30

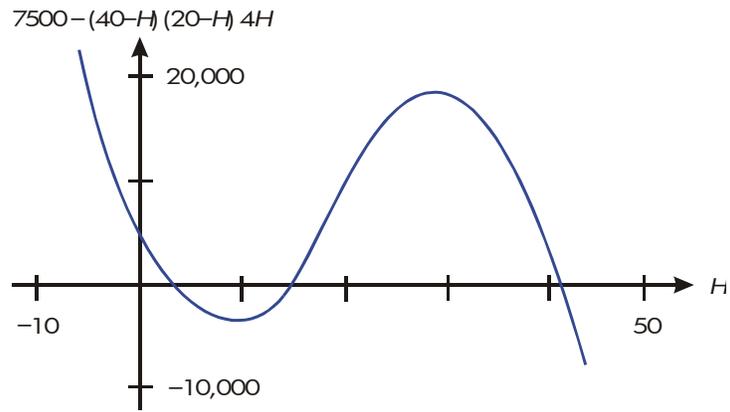
- 2,9774

10

.y

/ .
x x
H 7500 V /

- XEQ



SOLVE

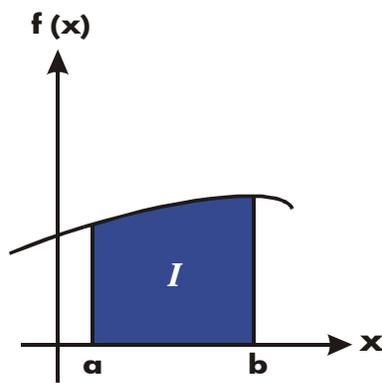
D

8

. /

b a f(x) /

$$I = \int_a^b f(x) dx$$



$f(x)$ / $f(x)$ $x=b$ $x=a$ x

. (FN d_1)

(FN_1) 

(FN)

:

")

.1

/

(6 ")

ENTER

.2 ✓

^

)

EQN

:

.3

(v)

← /

:

.4

MEMORY FULL

/

/

.B

"

R/S

C

2

" INTERRUPTED

SCI FIX

ALL /

.Z T

Y

/

.ENG

:

.Y X

R↑ R↑

.3 ✓

.2

1

.Bessel :

0 / Bessel

$$J_0(x) = \frac{1}{\pi} \int_0^\pi \cos(x \sin t) dt$$

.3 2 x Bessel

:

cos (x sin t)

:

/

CLEAR **3**
(3ALL) **(Y)** **ENTER**

3*3 lin. solve
EQN LIST TOP
EQN

COS(X) **COS** **RCL** **X**

COS(XxSIN) **X** **SIN**

COS(XxSIN(T)) **RCL** **T**

COS(XxSIN(T))_ **>** **>**

COS(XxSIN(T)) **ENTER**

CK=E1EC **SHOW**
LN=13

/

C

. x = 2 π t

:

:

:

. Radians

MODE **2** (2RAD)

)

3.1416

0 **ENTER** **(π)**

.(

COS(XxSIN(T)) **EQN**

∫ FN d_ **∫**

. X

X?
value **T**

x = 2 INTEGRATING

2 R/S

$$\int_0^{\pi} f(t) dt = 0.7034$$

J₀(2) 0.2239

π ÷



(0, π)

J₀(3)

.π

:

:

:



3.1416

0 ENTER π

.()

COS(X×SIN(T))

EQN

∫ FN d_

∫

.X

X?
2.0000

T

x = 3 INTEGRATING

3 R/S

$$\int_0^{\pi} f(t) dt = -0.8170$$

J₀(3) -0.2601

π ÷



:



)

(

)

:

(

$$S_i(t) = \int_0^t \left(\frac{\sin x}{x}\right) dx$$

.Si (2)

:

$$\frac{\sin x}{x}$$

DIVIDE BY 0)

x = 0

.(

```

:
/
:
3*3 lin. solve [EQN]
EQN LIST TOP

SIN(X) [SIN] [RCL] [X]
SIN(X) [>]

SIN(X)÷X [÷] [RCL] [X]
SIN(X)÷X [ENTER]

CK=0EE0 [←] [SHOW]
LN=8
/
C

```

.(t=2) 2 (X) x

```

:
.Radians [MODE] [2] (2RAD)
:
2_ [0] [STO] [X] [ENTER]
:
.( ) [2]

```

```

SIN(X)÷X [EQN]

```

```

.Si(2) [←] [✓] [X]
INTEGRATING
∫=
1.6054

```

/

.E

(ALL ENG SCI FIX)

/

)

:

.(

/

(7 /)

/

/

X↔Y

.Y

/

/

/

0.0002

1.6054 ± 0.0002

Si(2)

:

() SCI 2 SCI 2
 : / 1.61E0 [←] [DISPLAY] [2]
 (2SCI) [2]

T Z 0.00E0 [R↓] [R↓] ✓
 .Y X 2.00E0

SIN(X)÷X [EQN]
 INTEGRATING [←] [∫] X
 ∫=
 1.61E0
 / 1.61E-2 [x↔y]

/ .161±0.0161

(f(x)) /

Si(2)

:	:	:
/	1.6079E-2	\leftarrow DISPLAY 2 (2SCI) 4
T Z	0.0000E0 2.0000E0	\leftarrow \leftarrow
.Y X	SIN(X)÷X	EQN
	INTEGRATING	\leftarrow / X
	∫ =	
/	1.6054E0	
1/100	1.6056E-4	\leftrightarrow
/		
SCI 2		
.FIX 4	0.0002	DISPLAY 1 (2SCI) 4
/	0.0002	MODE 1 (1DEG)

9

HP 35s

(sin, cos, tan) \times **RPN** \div $x+y$ **RPN** r **B** **▲**
 (÷ × - +) . e z ln z z^{1/z} 1/z -z
 . (z2 z1) . e z ln z z^{1/z} 1/z -z
 . ALG / x+yi
 :

\times **RPN** \div :

. .1
 . **i** .2
 . .3
 $\times+y$ **RPN** :

. .1
 . **+** .2
 . .3
 . **i** .4
r **B** **▲** :

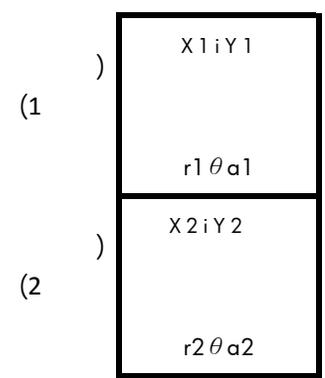
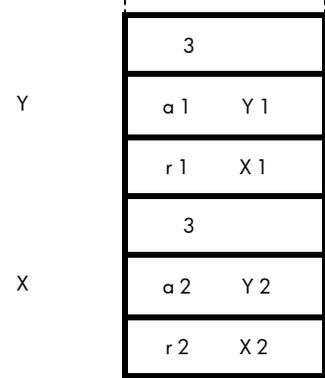
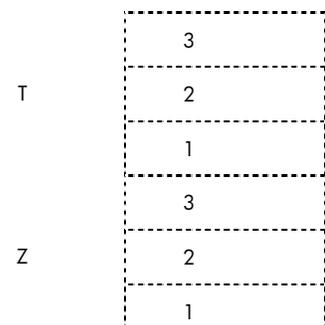
.r .1
 . **→** **θ** .2
 . θ .3

. RPN /

RPN



2 1
 2 X 2 1
 1 Y 2 1



Z

ALG

/

.RPN

:



. z .1
 . .2

Z

:	:
\pm/z	$-z$
$1/x$	$1/z$ /
\ln	$\ln z$ /
e^x	e^z /
SIN	z
COS	z
TAN	z /
ABS	ABS(z)
ARG	ARG(z)

:



. z_1 .1

. z_2 .2

. .3

$z_2 z_1$

:	:
$+$	Addition, $z_1 + z_2$
$-$	Subtraction, $z_1 - z_2$
\times	Multiplication, $z_1 \times z_2$
\div	Division, $z_1 \div z_2$
y^x	Power function, $z_1^{z_2}$ /

:

(2i3) /

← DISPLAY 9
(9× RPN) ↵

9.1545 i - 9.1545 RPN -4.16 2 i 3 SIN
.4.1689 89

$z_1 \div (z_2 + z_3)$

$z_1 = 23 i 13, z_2 = -2i1 \quad z_3 = 4 i - 3$

← DISPLAY 9
(9× RPN) ↵

	z1	23.0000 RPN	13.000 2 3 i 1 3 ENTER
		0	23.0000 RPN 13.000
		0	
	z2	-2.0000 RPN	1.0000 2 +/- i 1 ENTER
		-2.0000 RPN	1.0000
2i-2	(z ₂ + z ₃)	23.0000 RPN	13.000 4 i 3 +/- +
		0	
		2.0000 RPN	-2.0000
2.5i9	z ₁ ÷ (z ₂ + z ₃)	2.5000 RPN	9000 ÷

$(4i-2/5) \times (3i-2/3)$ /

← DISPLAY 9
(9× RPN) ↵

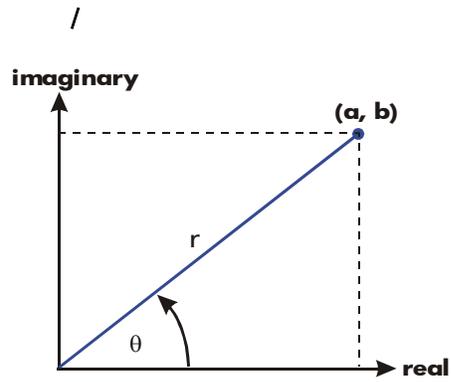
	4i-2/5	4.0000 RPN	-0.4000 4 i . 2 . 5 +/-
		4.0000 RPN	-0.4000 ENTER
	3i-2/3	4.0000 RPN	-0.4000 3 i . 2 . 3 +/-
		3 RPN	-0 2/3
11.7333i-3.8667		11.7333 RPN	-3.866 x
		7	

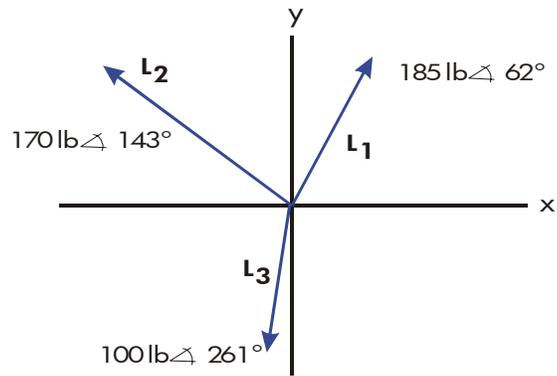
$$z = (1i 1) e^{z-2} /$$

```

:
:
:
1i1      1.0000[RPN] 1.0000 [1] [i] [1] [ENTER]
          1.0000[RPN] 1.0000
0i-5     Z-2  0.0000[RPN] -5.0000 [2] [+/-] [y^x]
          0.8776[RPN] -0.4794 [→] [e^x]
0.8776 i - 0.4794.

```





:	:	:
/	/	MODE 1 (1DEG)
/		DISPLAY . 0
.		(10 ^r B ▲)
L ₁	185.0000062.0000	1 8 5 [→] 0
	185.0000062.0000	6 2 ENTER
L ₂	170.00000143.00...	1 7 0 [→] 0
	170.00000143.000	1 4 3 ENTER
L ₂ + L ₃	L ₃ 185.0000062.0000	1 0 0 [→] 0
	151.45290178.660	2 6 1 +
L ₁ + L ₂ + L ₃	178.93720111.148	+
	←9	[→] >

/ /

DISPLAY

$$1i1+3\theta 10+5\theta 30 \quad /$$

:	:	:
/		MODE 1 (1DEG)
/		← DISPLAY . 0
.		(10r B ▲)
1i1	1.4142045.0000	1 i 1 ENTER
	1.4142045.0000	
3θ 10	3.0000010.0000	3 → 0 1 0
	3.0000010.0000	ENTER
5θ 30	1.4142045.0000	5 → 0 3 0
3θ 10	7.8861022.5241	+
1i1	9.2088025.8898	+
9.2088θ 25.8898		

. ALG /

.r θ a xiy

/

/

:

1i2+3010+5030

	(ALG):
	F001 LBL F
	F002 1 [RPN] 2+3 [B] 10+5 [B] 30
	F003 RTN

INPUT

/

/

10

	/			
	/	/	/	
			:	
			 	.1
				.2
.3-D	2-D		 	.3
	.3-D		 	.4
			HP 35s	

	:			
"INVALID DATA"				✓
				.1
				.2
		 		.3



```

:           :           :
.RPN                [MODE] 5 (5RPN)
[3,4]             [3.0000,4.0000]  [2] [1] 3 [4] [1] 4
                  [3.0000,4.0000]  [ENTER]
5                 [3.0000,4.0000]  [5]
                  5_
                  0.0000           [X]
                  [15.0000,20.0000]
                                  [-2,4] ÷ 2

```

```

:           :           :
.ALG                [MODE] 4 (4FLG)
[-2,4]             [-2,4]_         [2] [1] +/- 2 [4]
                  [-2,4]÷2         [1] 4 [2]
5                 [-2,4]÷2         [÷] 2
                  [-1.0000,2.0000]
                                  [ENTER]

```

"ABS"

A=(A1, A2, ...An)

$$\sqrt{A_1^2 + A_2^2 + \dots + A_n^2} = |A|$$

```

[2] ABS .1
.2
[ENTER] .3

```

: [5,12] :

```

RPN                .13                [2] ABS [2] [1] 5 [4] [1] 2 [ENTER]
(MODE) 5 (5RPN) [2] [1] 5 [4] [1] 2 [2] [2] ABS

```

DOT

"INVALID DATA"

[A, B], [C, D] :2D

$$[A, B] \cdot [C, D] = A \times C + B \times D$$

[A, B, X], [C, D, Y] :3D

$$[A, B, X] \cdot [C, D, Y] = A \times C + B \times D + X \times Y$$

.1
[X] .2
.3
[ENTER] .4

" " " [X] :
.17
[3,4] [1,2]

.ALG [MODE] [4] (4ALG)
[1,2] [1,2] [] [1] [] [] [2]
[X] [1,2] × [3,4] [X] [] [] [3] [] [] [4]
11.0000 [ENTER]
.11

[2,2] [9,5] ✓

.RPN [MODE] [5] (5RPN)
[9,5] [9.0000,5.0000] [] [] [9] [] [] [5]
[9.0000,5.0000] [ENTER]
[2,2] [9.0000,5.0000] [] [] [2] [] [] [2]
[2,2] 28.0000 [X]

.28

B A

$$\cos^{-1} \left(\frac{A \cdot B}{|A||B|} \right) = \theta = \text{ACOS}(A \cdot B / (|A||B|))$$

A=[1,0],B=[0,1] :

```

:
:
:
.ALG                                [MODE] [4] (4RLG)
:
:                                [MODE] [1] (1DEG)
:
:                                ACOS<
:                                [ACOS]
A [1,0]                            ACOS<[1,0]> [2] [1] [1] [0]
:                                [ ]
B [0,1]                            ACOS<[1,0]x[0,1]> [x] [2] [1] [0] [1]
:                                [ ]

```

B A

```

A [1,0]                            <[1,0]>+ABS<[1,0]> [2] [2] [ABS] [2] [1]
:                                [1] [ ] [0] [ ]
B [0,1]                            <[0,1]>+ABS<[0,1]> [2] [2] [ABS] [2] [1]
:                                [0] [ ] [1]
.90                                ACOS<[1,0]x[0,1]> [ENTER]
:                                90.0000

```

A=[3,4],B=[0,5] :



```

:
:
:
.RPN                                [MODE] [5] (5RPN)
:
:                                [MODE] [1] (1DEG)
:
:                                90 [2] [1] [3] [ ] [4]
:                                20.0000 [ENTER] [2] [1] [0] [ ]
:                                [ ] [5] [x]
[3,4]                            20.0000 [2] [1] [3] [ ] [4]
:                                5.0000 [2] [ABS]
[0,5]                            5.0000 [2] [1] [0] [ ] [5]
:                                5.0000 [2] [ABS]
:                                20.0000 [x]
:                                25.0000
:
:                                90 [2]
:                                0.8000
:                                90 [2] [ACOS]
36.8699                            36.8699

```



solver

1-D



: [5, 6] + 2 x [7, 8] x [9, 10]

: :

G0001 LBL□G

[5,6] G0002 [5,6] + 2 x [7,8] x[9,10]

G0003 RTN

_____ /

. /

ALG

RPN

.

ALG

.

/ /

.

J I

. (J) (I)

RPN [C, REGZ, (J)] /

.

/

/ ( BASE) BASE

/

( LOGIC) LOGIC

BASE

<p style="text-align: center;">/</p> <p style="text-align: center;">HEX</p> <p style="text-align: center;">RPN</p> <p style="text-align: center;">       </p> <p style="text-align: center;">.F A /</p> <p style="text-align: center;">F E D C B A  ALG</p> <p style="text-align: center;">.F A</p> <p style="text-align: center;">OCT</p> <p style="text-align: center;">/</p> <p style="text-align: center;">BIN</p> <p style="text-align: center;">12</p> <p style="text-align: center;">")  </p> <p style="text-align: center;">.(" "</p> <p style="text-align: center;">"h"</p>	<p>DEC</p> <p>HEX</p> <p>OCT</p> <p>BIN</p> <p>d</p> <p>h</p>
<p>"o"</p> <p>"b"</p>	<p>o</p> <p>b</p>

/

/ :
 . /
 125.9910
 : : :
 .16 70h [1][2][5] [BASE] [2] (2HEX)
 .8 175o [BASE] [3] (3OCT)
 .2 1111101b [BASE] [4] (4BIN)
 125.0000 [BASE] [1] (1DEC)

/ :
 ()
) 14 24FF16
 .(

: : :
 [I/x] 24FFh [BASE] [2] (2HEX) ✓
 " F " [2][4] [I/x] [I/x] [BASE] [6] (6h)
 → 1001001111111111 → [BASE] [4] (4BIN)
 ←b [BASE] []
 1001001111111111b
 14 1001001111111111 → [BASE] []
 / 9.471.0000 [BASE] [1] (1DEC)

/ h/d/o/b n- / **BASE**
 . / / 16/10/8/2 /
 /
 :
 :ALG /
 . / / .1
 (1) / .2
 . 2
 / **ENTER** .3
 .2 16/10/8/2 / h/d/o/b /
 . **>** **<** .4
 :RPN /
 . / **ENTER** , 2
 h/d/o/b 2 1 /
 .16/8/2
 . **<** **>** **<** **>** , 2

, X

.X

OVERFLOW

			12F ₁₆ + E9A ₁₆ = ?	
16	/			[F] [BASE] [2] (2HEX)
		HEX		
			FC9h	[1] [2] [1/x] [F] [BASE] [6] [6h] [ENTER] [y ^x] [9] [SIN] [F] [BASE] [6] [6h] [+]
				✓
	/		7760 ₈ - 4326 ₈ = ?	
		OCT	7711o	[F] [BASE] [3] (3OCT)
			3432o	[7] [7] [6] [0] [F] [BASE] [7] (7o) [ENTER] [4] [3] [2] [6] [F] [BASE] [7] (7o) [-]
				✓
			100 ₈ ÷ 5 ₈ = ?	
			14o	[1] [0] [0] [F] [BASE] [7] (7o) [ENTER] [5] [F] [BASE] [7] (7o) [÷]
				✓
	/		5A0 ₁₆ + 1001100 ₂ = ?	
		HEX	5A0h	[F] [BASE] [2] (2HEX) [5] [SIN] [0] [F] [BASE] [6] (6h) [ENTER]
				✓
2	/		1001100 ₂	[F] [BASE] [4] (4BIN) [1] [0] [0] [1] [1] [0] [0] [F] [8] (8b)
		BIN		
			[ENTER]	✓
			10111101100 ₂	[+]
			5ECh	[F] [BASE] [2] (2HEX)
			1,516.0000	[F] [BASE] [1] (1DEC)

12

HP 35s

:() /

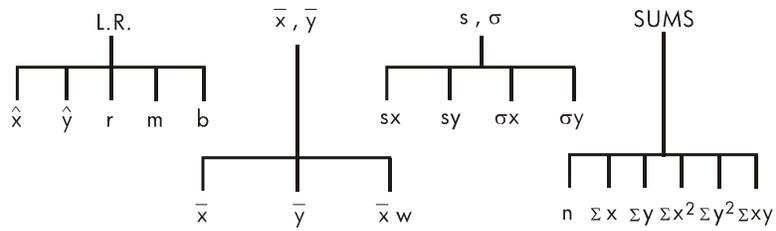
. /

. (\hat{y} \hat{x}) /

(y x)

. Σxy Σy^2 Σx^2 Σy Σx n :

-
-
-
-
-



/

()

. (\leftarrow Σ^-) Σ^+

\rightarrow SUMS) .SUMS (-32 -27)

(n Σx Σy Σx^2 Σy^2 Σxy)

(\rightarrow CLEAR 4) (4 Σ)



/

/

	$\boxed{\rightarrow}$ CLEAR $\boxed{4}$ (4Σ)	.1
	$\boxed{\Sigma+}$ x	.2
	n	.3

$\boxed{\Sigma+}$

/

- X	.y	Y
	y	.y x

$\boxed{\rightarrow}$ LAST.x

/

$\boxed{\text{ENTER}}$	()		✓
	$\boxed{\Sigma+}$	()	

/

	$\boxed{\rightarrow}$ CLEAR $\boxed{4}$ (4Σ)	.1
	$\boxed{\text{ENTER}}$ y	.2
	$\boxed{\Sigma+}$ x	.3
	n	.4
	n .y x	.5

$\boxed{\rightarrow}$ LAST.x

/

y x

:
 . \leftarrow Σ^- Σ^+ .1
 .n /
 . Σ^+ / .2
 \leftarrow LASTx ✓
 x Y y) . \leftarrow Σ^-
 n 1 Y , (LAST X
 .2

y x	y x
20, 4	20, 5
400, 6	40, 6

: : :
 / \leftarrow CLEAR 4 (4 Σ)
 4.0000 4 ENTER 2 0 Σ^+ ✓
 1.0000
 .n 6.0000 6 ENTER 4 0 0 Σ^+ ✓
 2.0000
 x 6.0000 \leftarrow LASTx
 y 400.0000
 .Y 6.0000 \leftarrow Σ^-
 1.0000
 6.0000 6 ENTER 4 0 Σ^+ ✓
 2.0000
 4.0000 4 ENTER 2 0 \leftarrow ✓
 1.0000 Σ^-
 5.0000 5 ENTER 2 0 Σ^+ ✓
 2.0000 ✓

$r = \frac{\sum xy}{\sqrt{\sum x^2 \sum y^2}}$	 L.R.	L.R.
$\bar{y} = \frac{\sum y}{n}$	 \bar{x}, \bar{y}	\bar{y}, \bar{x}
$s_x = \sqrt{\frac{\sum x^2}{n} - \bar{x}^2}$	 S,σ	S,σ
$\sum x^2, \sum y^2, \sum xy$	 SUMS	SUMS

/

\bar{x}  \bar{x}, \bar{y} (\bar{x}) ■
 \bar{y}  \bar{x}, \bar{y} > (\bar{y}) ■
 $\sum x^2$  \bar{x}, \bar{y} > > ($\sum x^2$) ■

.() / :

:()

15.5	9.25	10.0
12.5	12.0	8.5

.(x) /

: : :

/

CLEAR **4** (4Σ)

1.0000

1 **5** **.** **5** **Σ+**

6.0000

9 **.** **2** **5** **Σ+** **1** **0**

Σ+ **1** **2** **.** **5** **Σ+** **1**

2 **Σ+** **8** **.** **5** **Σ+**

\bar{x}_w \bar{y} \bar{x}
11.2917

) **×** **↵** \bar{x}_w (

.() / :

:

\$4.10	\$4.70	\$4.60	\$4.25 (x)
1000	900	800	250 (y)

.() ,y ()

/ ,x

: : :

/

CLEAR **4** (4Σ)

n

900.0000
3.0000

2 **5** **0** **ENTER** **4** **.**

2 **5** **Σ+**

8 **0** **0** **ENTER** **4** **.**

6 **Σ+**

9 **0** **0** **ENTER** **4** **.**

7 **Σ+**

1,000.0000

1 **0** **0** **0** **ENTER** **4**

4.0000

1 Σ+

\bar{x} \bar{y} \bar{x}
4.4314

) \bar{x} \bar{y} \bar{x} \bar{y} \bar{x} \bar{y} (

n-1

/

.() /

.x

⏪ S.σ (Sx)

.y

⏪ S.σ > (Sy)

" ,

(σ \bar{y}) (σ \bar{x})

." /

:

" / "

/

: (Sx)

9.25

15.5

10.0

12.5

12.0

8.5

.(x

). /

:

:

:

/

1.0000

⏪ CLEAR 4 (4Σ)

1 5 . 5 Σ+

9 . 2 5 Σ+ 1 0

Σ+ 1 2 . 5 Σ+ 1

2 Σ+ 8 . 5 Σ+

6.0000

Sx Sy σx σy
2.5808

⏪ S.σ (Sx)

. /

/ /

. () / n-1

.x / $\boxed{\rightarrow} \boxed{S.\sigma} (\Sigma \times)$ ■

.y / $\boxed{\rightarrow} \boxed{S.\sigma} \boxed{>} (\Sigma \vee)$ ■

. / :

180 174 ,173 ,170

: : :

/ $\boxed{\rightarrow} \boxed{CLEAR} \boxed{4} (4\Sigma)$

$\boxed{1} \boxed{7} \boxed{0} \boxed{\Sigma+} \boxed{1} \boxed{7} \boxed{3}$
 $\boxed{\Sigma+} \boxed{1} \boxed{7} \boxed{4} \boxed{\Sigma+} \boxed{1} \boxed{8}$
 $\boxed{0} \boxed{\Sigma+}$

4.0000

$\Sigma \times \Sigma \vee \sigma \times \sigma \vee$ $\boxed{\rightarrow} \boxed{S.\sigma} \boxed{>} \boxed{>} (\sigma \times)$
 3.6315

/

/ () L.R /

.y,x

STAT ERROR

L.R



(/) ...

y	x	$($	$)$	\hat{x}
x	y	$($	$)$	\hat{y}
$(y - \hat{y})$	$(x - \hat{x})$	$+$	$-$	r
$+$	$-$	1	-1	m
y	$/$			b

$(x - \hat{x}) y$

y

$(y - \hat{y}) x$

$\left[\leftarrow \right] \left[L.R. \right] \left[\rightarrow \right] (\hat{y}) \left[\leftarrow \right] \left[L.R. \right] (\hat{x})$

F

$\left[\leftarrow \right] \left[L.R. \right]$

$\left[\leftarrow \right] \left[L.R. \right]$

80.00 60.00 40.00 20.00 0.00

X

$($

7.78 7.21 6.61 5.78 4.63

Y

$($

:

:

:

/

$\left[\leftarrow \right] \left[CLEAR \right] \left[4 \right] (4\Sigma)$

n

$\left[4 \right] \left[\cdot \right] \left[6 \right] \left[3 \right] \left[ENTER \right] \left[0 \right] \left[\Sigma+ \right]$

7.2100
4.0000

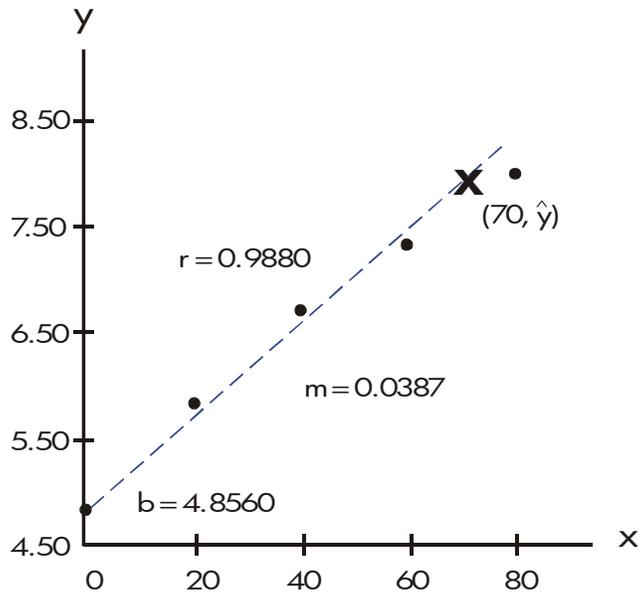
$\left[5 \right] \left[\cdot \right] \left[7 \right] \left[8 \right] \left[ENTER \right] \left[2 \right] \left[\Sigma+ \right]$

$\left[6 \right] \left[\cdot \right] \left[6 \right] \left[1 \right] \left[ENTER \right] \left[4 \right] \left[\Sigma+ \right]$

$\left[7 \right] \left[\cdot \right] \left[2 \right] \left[1 \right] \left[ENTER \right] \left[6 \right] \left[\Sigma+ \right]$

7.7800 7 . 7 8] ENTER 8
 5.0000 0] Σ+
 r m b ŷ [L.R.] >] >] (r)
 0.9880

/ r m b ŷ >
 0.0387
 .y r m b ŷ >
 4.8560



: : :

x 7.7800 70_ [C] [7] [0]

rmb \hat{y} \hat{x}) [L.R.] (

7.5615

/ /

/

:

/

/

x .(/)

/ \hat{y} \hat{x} \bar{x} /

, 7777001 7777000 7776999 x , .b

. \hat{x} \bar{x} 7777000 1 0 -1

.7777000 x \hat{y} .7777000 $\times m$ b

y x

/

[L.R.] [Σ-]

: [] [] SUMS
 . x [] (Σx)
 . y [] [] (Σy)
 [] [] [] [] [] [] (Σxy) [] [] [] [] (Σy²) [] [] [] [] (Σx²) (n) ■
 y x ■
■

[] [] [] MEM [] (1VAR) ENTER
 [] []

/ :
 (3,4) (1,2) [] Σ+

/ [] CLEAR [] (4Σ)
 .(1,2) 2.0000 [] ENTER [] Σ+ ✓
1.0000
 .(3,4) 4.0000 [] ENTER [] Σ+ ✓
2.0000

VAR	/	↑	n=	
	.n	↓	2.0000	MEM 1 (1VAR)
Σxy		↑	$\Sigma xy =$	
		↓	14.0000	
Σy^2		↑	$\Sigma y^2 =$	
		↓	20.0000	
Σx^2		↑	$\Sigma x^2 =$	
		↓	10.0000	
Σy		↑	$\Sigma y =$	
		↓	6.0000	
Σx		↑	$\Sigma x =$	
		↓	4.0000	
n		↑	n=	
		↓	2.0000	
VAR	/		4.0000	
			2.0000	

/ . HP 35s /

.	-27	n
. x	-28	Σx
. y	-29	Σy
. x	-30	Σx^2
. y	-31	Σy^2
. y x	-32	Σxy

(-32 -27)
 , .((U) STO (U)) J /
 / " . - () (U) (U) VIEW (U)
 SUMS .
 14 " /



13

1

2

" "

:

πr^2 :

5

5 x^2 \leftarrow π \times :RPN

5 y^x 2 \times \leftarrow π ENTER :ALG

.5398 78

(" 5 ")

:

	ALG	RPN
	0001 SQ(x)×π	0001 ×2 0002 π 0003 ×
() X		
	.X	
	:	RPN
	:	
	:	
	/	
PRGM)	:(RPN)	
.(	CLEAR 3 (3ALL) < (Y) ENTER  PRGM	
. PRGM TOP	PRGM TOP	 . .
. (Radius)2	0001 ×2	
. πx²	0002 π	
	0003 ×	
		 PRGM
	:5	
	:	
	:	
		:(RPN)
		 . .
!	78.5398	5 
	:	ALG

```

:
:
:(ALG )
. /
(CLEAR) 3
(3ALL) (Y) ENTER
PRGM
PRGM
.(
PRGM TOP
GTO . .
.PRGM TOP
(Radius)2 0001 SQ(X)×π
(x²) RCL X > X
π
PRGM
:5
:
:
:(ALG )
GTO . .
.X 5 5 X
5.0000
! 78.9358
R/S

```

ALG

RPN

RPN

. ALG

(RTN LBL)

/

.(A005 RTN)

(A001 LBL A)

. / A

/

. / ()

: /

 LBL letter-key (/ -)

/ .Z A /

) / .(3)

/ (DUPLICAT . LBL

. / (/)

/

999

: .

 RTN

PRGM TOP

RTN

ALG RPN

:

.(2) RPN ■
(C) ALG ■
(6) ■

RPN .(RPN)

ALG

RPN

XEQ

" = "

ENTER

) : " - "

.(STO

RPN /

/

/

/

,INPUT

/

VIEW

2 / 1 /

:" "

/

PRGM

PRGM

ALG ()

:

/ PRGM .1

PRGM TOP GTO . . .2

/

(Y) ENTER

CLEAR 3 (3PGM)

CLR PGMS? Y_N

. LBL letter (/) .Z A / - / .3

:" "area" A /

/

DUPLICAT.LBL

/

MEM 2 (2PGM)

. C CLEAR

.4

PRGM TOP

.5

RTN

PRGM) C

.6

/

.(SHOW

) .SCI ALL

:

.EQN

/ EQN

.1

6

.2

) .

ENTER

.3

.(

SHOW

SHOW

> <

/ /

:

/

C

/

/

/

/

CLEAR (1x)

X

/

XEQ GTO

:

A001 LBL A
 A002 2+3
 A003 1+2
 A004 GTO A003

“A003 GTO A002” A004 A002



(**PRGM**)

(" ") A

A /

(**PRGM**)

(RPN)



PRGM TOP



(3PGM) (Y)



A001 LBL A



A002 x²



A003 π



A004 x



A005 RTN



LBL A



LN=15

(2PGM)

CK=DAF1



LN=15



RPN

:	:	:
		(RPN)
/		PRGM TOP
E	.("equation "	E001 LBL E
	.R	E002 STO R
/		E003 $\pi \times R^2$
		CK=7E5B
		LN=5
		E004 RTN
E	/	LBL E (2PGM)
		LN=17
		CK=2073
		LN=17



)

C

.(**PRGM**

(XEQ)

: /

/ XEQ

.ENTER

/ XEQ

"XEQ A001"

.XEQ A ENTER

.A /

/ XEQ

.XEQ A 0 0 5

B

PRGM

.(/)

R/S

. /

2,5 5

E A

.E A

.π2

:

:

:

:

(RPN)

.A

RUNNING
78.5398

5 XEQ A ENTER

19.6350

2 . 5 XEQ E
ENTER

.E

124.0251

2 π X
XEQ A ENTER

.(PRGM)

.(LBL) / .1



.(X)



) 3 . .3



(/

5 .A

:

/

:

:

:

(RPN)

/

5.0000 GTO A ENTER

.A

A001 LBL A (hold) (release)

5.0000

A002 x2 (hold) (release)

25.0000

.π A003 π (hold) (release)

3.1416

25π. A004 x (hold) (release)

78.5398

A005 RTN (hold) (release)

78.5398



```

      Z   A           3           /           )
      .(           /           )
      :
      .(           )           /           INPUT           ■
      .(           STO           )           .           ■
      ) .(11 /           )           .           ■
      .(           )           .(           )           ■
      :
      ) .           VIEW           ■
      PSE           ) .           Y X           -           .(           ■
      ) (11 /           )           .(           Y X           ■
      .(           "           "           .(           )           ■
  
```

/ INPUT

( INPUT Variable ()) INPUT

:
.
/ R?
0.0000
"R"
/ "?"
0.0000

X
.X (/) 

: INPUT

RPN	ALG
A001 LBL A	A001 LBL A
A002 INPUT R	A002 INPUT R
A003 x ²	A003 SQ(R)×π
A004 π	A004 RTN
A005 x	
A006 RTN	

: INPUT

) .
.1
(R

INPUT .2

RCL variable ()

X

INPUT

INPUT

-

- Z - Y - X

.INPUT

/

:

R?0.0000

INPUT

R (X)

R/S

X

R/S

2 **ENTER** **5**

R/S

) ALG

2 **y^x** **5** **ENTER** **R/S**

RPN

y^x **R/S**

ENTER

2

ENTER

(X

2

X

C

INPUT

C

INPUT

R/S

C

INPUT

/ VIEW

(VIEW variable()) VIEW

R=
78.5398

/ .X

.X ENTER

14

↩ > ↩ <

X

/ (←) C

/ ↩ CLEAR

R/S

.16 " /

.X T

T016 T015

VIEWed

RCL

.RCL

VIEW ENTER

) .

X

17 16

.(/

. X

VIEWed

()
 - /
 EQN
 ENTER / RCL
 10 /
 (14 /) J
 R/S - ()
 → 14
 [] [] [] []

() VIEW INPUT :
) 7 () S (cylinder) C
 : () H () R

$$V = \pi R^2 H$$

$$S = 2\pi R^2 + 2\pi RH = 2\pi R (R + H)$$

(RPN)
 /
 PRGM TOP [] PRGM []
 CLEAR 3 (3PGM)
 [] (Y) ENTER
 C001 LBL C [] LBL C
 C002 INPUT R [] INPUT R
 C003 INPUT H [] INPUT H

```

:
:
:
(RPN )
EQN [ ] [ ] [ ] [ ]
RCL [ ] [ ] [ ] [ ] [ ]
RCL [ ] [ ] [ ] [ ] [ ]
C004  $\pi \times R^2 \times H$ 
CK=74FE [ ] [ ] SHOW
LN=7
.V C005 STO V [ ] [ ]
EQN [ ] [ ] [ ] [ ]
[ ] [ ] [ ] [ ] [ ] [ ]
RCL [ ] [ ] [ ] [ ] [ ]
C006  $2 \times \pi \times R \times (R + \rightarrow)$ 
CK=19B3 [ ] [ ] SHOW
LN=11
C007 STO S [ ] [ ]
10 / .S
C008 SF 10 [ ] [ ] [ ] [ ] (1SF)
[ ] [ ]
EQN [ ] [ ] [ ] [ ]
RCL [ ] [ ] [ ] [ ] [ ]
[ ] [ ] [ ] [ ] [ ] [ ]
SPACE [ ] [ ] [ ] [ ]
SPACE [ ] [ ] [ ] [ ]
RCL [ ] [ ] [ ] [ ] [ ]
RCL [ ] [ ] [ ] [ ] [ ]
C009 VOL + ARE  $\rightarrow$  [ ] [ ] [ ] [ ] ENTER
.10 [ ] [ ] [ ] [ ] (2CF)
C010 CF 10 [ ] [ ]
C011 VIEW V [ ] [ ] [ ] [ ]
C012 VIEW S [ ] [ ] [ ] [ ]
C C /
C013 RTN [ ] [ ] [ ] [ ]
LBL C [ ] [ ] [ ] [ ] (2PGM)
LN=67
CK=97C3 [ ] [ ] SHOW
LN=67
[ ] [ ]

```

8

2,5

: :

(RPN)

C) R
.(R

R? XEQ C ENTER
value

2 1/2

H? 2 . 1 . 2
value R/S

.H

VOL + AREA 8 R/S

V= R/S

157.0796

S= R/S

164.9336

.() VIEW

R/S

() PSE -

VIEW -

/

/ RND

/

.() 7

PSE R/S PSE

- PSE

- PSE VIEW

(PSE STOP)

.STOP (/) R/S

X

RTN STOP R/S

.() PSE R/S PSE

PSE - X

(10 /) VIEW

- /

R/S C

(/) R/S

RTN GTO XEQ

XEQ label line (/) R/S

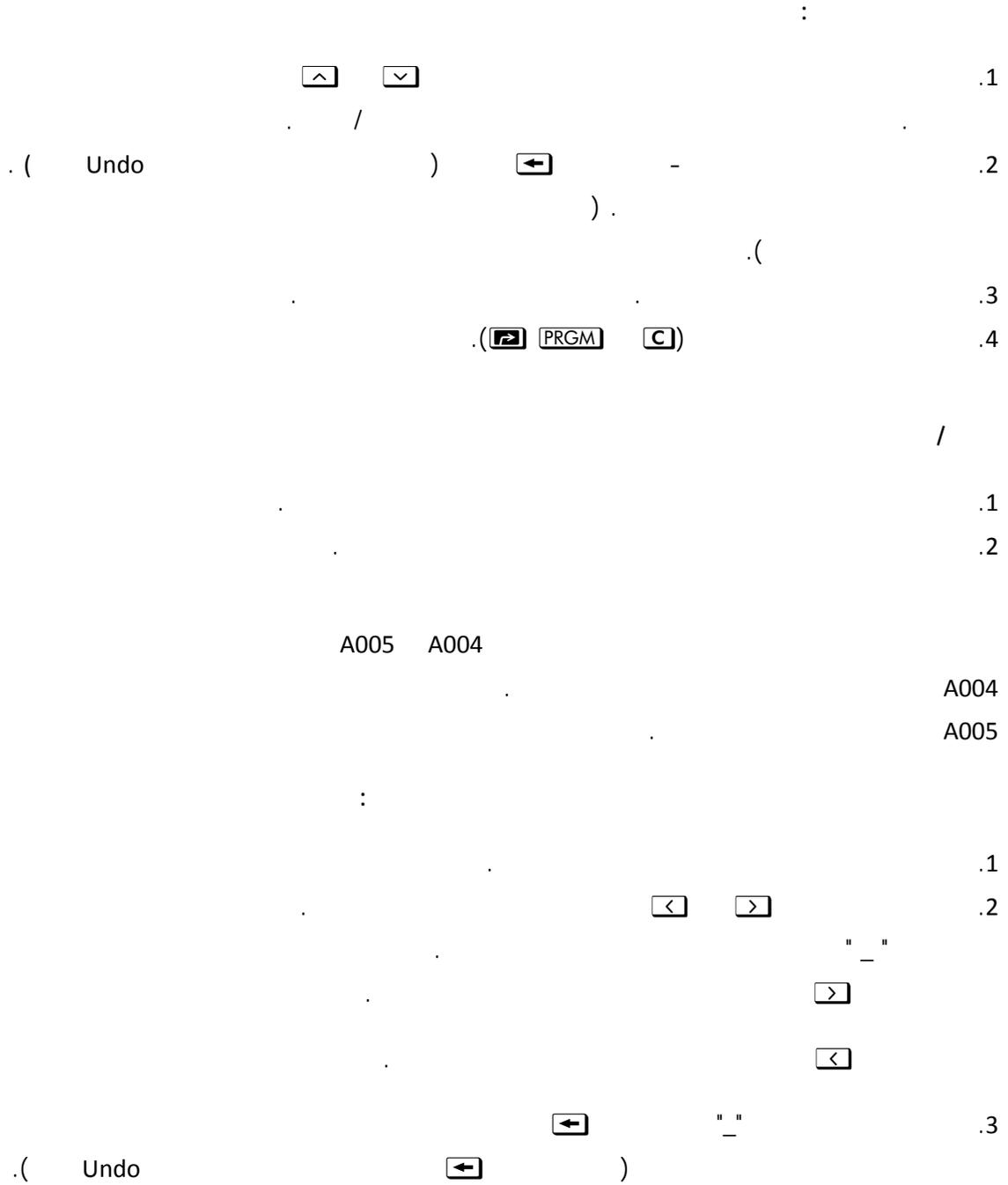
.(number

.(F)

PRGM

÷) .

.(



```

:
      .1
      ^  v
      ←  (      )      .2
      ENTER
      ↵ ←  ↵ →      .3
      ALG      , ENTER      .4
      .5

```

```

/
) /      ↵ PRGM
/      .(      PRGM
      .PRGM TOP
      :(      )
      ↵ v  ↵ ^      ■
      (" / ")      ■
      .PRGM TOP      ^  v      ■
      GTO  .  .      ■
      GTO  . label (      )nnn      ■

```

() /
GTO label line number ()
/

MEMORY FULL

" " " / " .
.B

(MEM) /

/ /
/ MEM 2 (2PGM) : ^ v

.(/ R/S أو XEQ) .

.(/ PRGM) .

.(/ CLEAR) .

.(SHOW) / .

: /

:(")

: :

(RPN)

C
67

LBL C [MEM] [2]
LN=67 (2PGM) [ENTER]
CK=97C3 [SHOW] (hold)
LN=67

17 16

/

: HP 35s

[CLEAR] [3] (3PGM)

[CLEAR] [3] (3ALL)

[←]

[↓], [↑], [←], [→]

[PRGM]

[↓], [↑]

[UNDO]

[GTO] [.] [.]

[GTO] [.] label line number (/)

[MEM]

[SHOW]

[EQN]

[FDISP]

[CLEAR] [6] (6CLVARx)

BASE

 **BASE**

/ /
/

/ /
.()

/

DEC . HEX OCT BIN
/ /

/ / /

/

/

/

: /
:
:

PRGM BIN
A009 BIN
A010 10b

PRGM
A009 BIN
A010 10

"b" "d"

:
:
:

/

$$Ax^4 + Bx^3 + Cx^2 + Dx + E$$

x

RPN

x

.(x = 7) 7

x

$$5x^4 + 2x^3$$

RPN

```

:           :           :
                                (RPN)
                                PRGM GTO
                                PRGM TOP
                                A001 LBL A
                                A002 INPUT X
                                5
                                A003 5
                                A004 RCL X
                                A005 4
                                x4
                                5x4
                                A006 y^x
                                A007 x
                                A008 RCL X
                                A009 3
                                x3
                                A010 y^x
                                A011 2
                                2x3
                                A012 x
                                5x4 + 2x3
                                A013 +
                                A014 RTN
                                LBL A MEM 2 (2PGM)
                                LN=46
                                CK=EA18 SHOW
                                C C

```

(x = 7)

```

:           :           :
                                (RPN)
                                XEQ A ENTER
                                .x /
                                X?
                                value
                                12.691.0000
                                7 R/S

```

: $Ax^4 + Bx^3 + Cx^2 + Dx + E$

```
A001 LBL A
A002 INPUT A
A003 INPUT B
A004 INPUT C
A005 INPUT D
A006 INPUT E
A007 INPUT X
A008 RCL X
A009 RCL× A
A010 RCL+ B
A011 RCL× X
A012 RCL+ C
A013 RCL× X
A014 RCL+ D
A015 RCL× X
A016 RCL+ E
A017 RTN
```

Checksum and length: 9E5E 51 :

14

13

/

▪

(/)

▪

▪

/

▪

RTN

/

/

.STOP

(RTN XEQ)

()

/

/

:

R005 GTO B001 →①

.("1 ") ← ①

B001 LBL B ←①

("1 ") → ①

D003 XEQ E001

D

E

) D

RTN

E

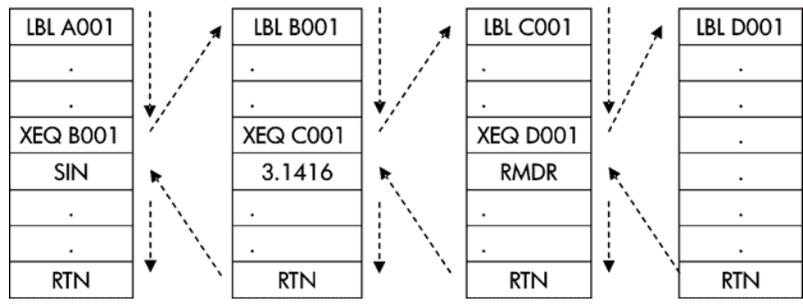
.D004

(

		D001 LBL D
		D002 INPUT X
.E	→ ①	D003 XEQ E001
	← ②	D004 STO X
		D005 VIEW X
		D006 RTN
	← ①	E001 LBL E
		E002 +/-
.D	→ ②	E003 RTN

.() . 20

()



.XEQ OVERFLOW

20

S

$$\sqrt{a^2 + b^2 + c^2 + d^2}$$

)

Q

(

RPN /

	S001 LBL S
.A	S002 INPUT A
.B	S003 INPUT B
.C	S004 INPUT C
.D	S005 INPUT D
	S006 RCL D
	S007 RCL C
	S008 RCL B
	S009 RCL A
A ² .	S010 x ²
A ² + B ² .	→ ① S011 XEQ Q001
A ² + B ² + C ²	→ ③ S012 XEQ Q001 ② →
A ² + B ² + C ² + D ²	→ ⑤ S013 XEQ Q001 ④ →
$\sqrt{A^2+B^2+C^2+D^2}$	x√ S014 ⑥ →
	S015 RTN
	← ①③⑤ Q001 LBL Q
	Q002 x<>y
	Q003 x ²
.x ²	Q004 +
.S	Q005 RTN ②④⑥ ←

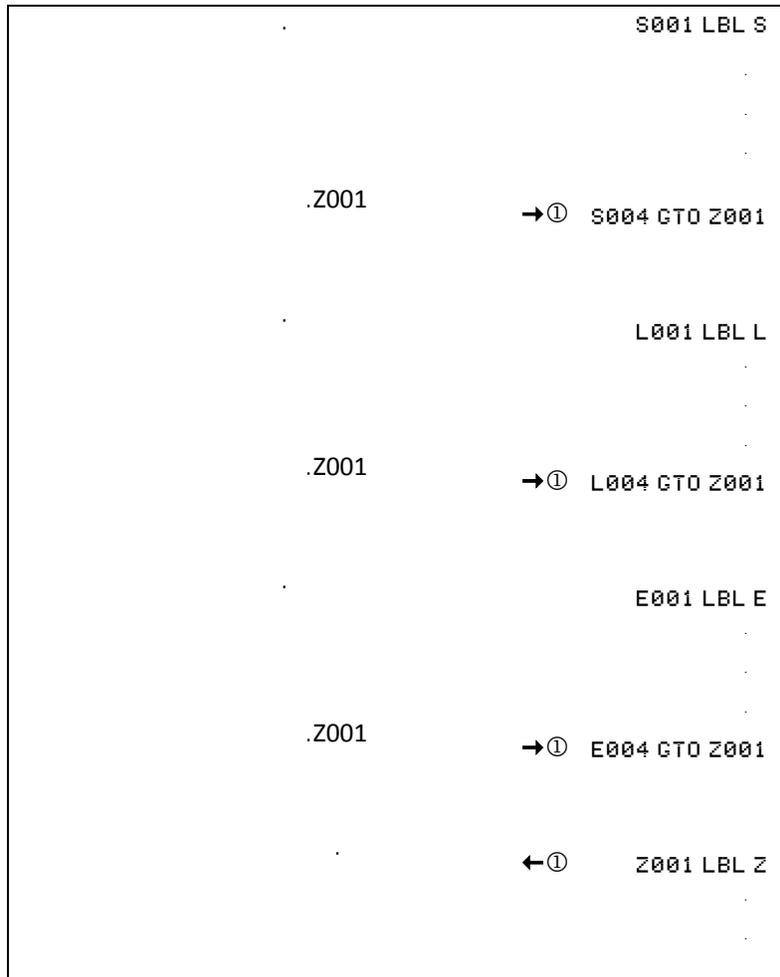
(GTO)

() GTO

.(/)

GTO

(/ **GTO**) / GTO
/ /
GTO
GTO Z 001 .16 " "
LBL Z



GTO

/ **GTO**

```

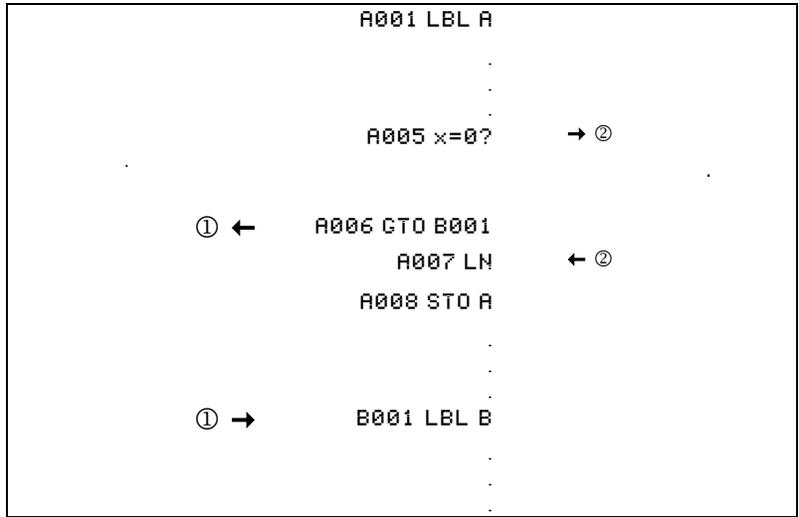
                                GTO 005 : PRGM TOP
.(1000 < ) GTO label line number ( / ) :
                                'GTO A 0 0 5'                                GTO 0 A 0 0 5
                                                                " GTOA001"
) A001: GTO A ENTER : ... /
                                                                "GTO A001" (

```

```

/ . /
.
( X ) x=0? A005
      X X
      X
." Do if true " . A007

```



X Y X
/ / /

(x?0 x?y)

x?0 x?y

12

.y x x?y
x x?0
.Y y X x
x?0 x?y .Y X
INVALID DATA

	x?0			x?y	
x≠0?		≠	x ≠ y?		≠
x≤0?		≤	x≤y ?		≤
x<0?		<	x<y ?		<
x>0?		>	x>y?		>
x≥0?		≥	x ≥y?		≥
x=0?		=	x=y ?		=

.NO |YES

.x<y y=7 x=2 :

:
 YES **7** **ENTER** **2** **↵** **x?y** **>** **>** **(<)** **ENTER** **RPN**
 YES **7** **x↔y** **2** **↵** **x?y** **>** **>** **(<)** **ENTER** **ALG**

x<y? 16 " / / "
 :T

```

:
(RPN )
.
.
.
. Xguess X      T009 ÷
. Xguess X      T010 STO+ X

T011 ABS
T012 0.0001
T013 x<y?

T014 GTO T001

T015 RCL X
T016 VIEW X
.
.
.

T013    . Xguess X    T009
(    ) 0.0001    0.0001
.T015    0.0001    T014
  
```

/ (True) /
 " (False)
 / :"
 /
 / .11 0 / 12 HP 35s

12 /
 B /

[CLEAR] [3] (3ALL) [Y] [ENTER]

4 3 2 1 ■
 .() .

5 ■
 ▲ OVERFLOW

5
 OVERFLOW

) TOO BIG 6 / ■
 .(6 /
 TOO BIG 6 /

6 5
 5 /
 6

7 9 8 7 ■

7 / [FDISP]

9	8	7	
<p style="text-align: center;">/</p> <p style="text-align: center;">.</p> <p style="text-align: center;">/</p> <p style="text-align: center;">)</p> <p>(8 /</p>	<p style="text-align: center;">/</p> <p style="text-align: center;">./c</p> <p style="text-align: center;">/</p> <p style="text-align: center;">./c</p>	<p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p> <p style="text-align: center;">.</p>	<p style="text-align: center;">/</p> <p style="text-align: center;">)</p> <p style="text-align: center;">(/</p> <p style="text-align: center;">/</p>

: (/) 10 / 10 ■

.VIEW / ()

.1
.2
.3

C **←**

PSE .4
CF SF 10
CF SF /

-

/ 11 ■

FN SOLVE

() 11 /

. INPUT

11 /

R/S

()

R/S

FN SOLVE
CF SF

11 /
11

SF /

CF

/

```

:
:
(RPN )
S001 LBL S
.In X , 0 S002 CF 0
.In Y , 1 S003 CF 1
. X S004 INPUT X
... 0 S005 FS? 0
.X ... S006 LN
. X S007 STO X
. Y S008 INPUT Y
... 1 S009 FS?1
.Y ... S010 LN
. Y S011 STO Y
. S012 VIEW X
. S013 VIEW Y
S014 RTN

```

16B3 42 :

```

1 0 ,( ) S003 CF1 S002 CF0
.Y X / S010 S006
S006 0 ,CF 1 SF 0 S003 S002
.X /
S010 1 ,SF 1 CF 0 S003 S002
.Y /

```

1 0 ,SF 1 SF 0 S003 S002
 .Y X / S010 S006

: :
 :(RPN)

,S / X? XEQ S ENTER
 .X
 .Y ,X 1 Y? 1 R/S
 X ,X 1 X= 1 R/S
 1.0000
 Y Y= R/S
 1.0000

← ← FLAGS 2 (2CF) 0

0 1 FLAGS 2 (2CF) 1

.(/
 (9 8 7)
 ." " (10)

: MESSAGE

.(EQN) EQN / .1
 RCL letter (/) .2
 SPACE
 / ENTER .3

:	:	(RPN))
		LBL F	F001
		CF 7	F002
		CF 8	F003
		CF 9	F004
		SF 10	F005
	/	DEC	F006
	.	INPUT V	F007
	/	INPUT D	F008
	(2 - 4095)	RCL V	F009
		DECIMAL	F010
		PSE	F011
		STOP	F012
		RCL D	F013
.7	/c	/c	F014
		RCL V	F015
		MOST PRECISE	F016
		PSE	F017
		STOP	F018
	.8	SF 8	F019
		FACTOR DENOM	F020
		PSE	F021
		STOP	F022
	.9	SF 9	F023
		FIXED DENOM	F024
		PSE	F025
		STOP	F026
		GTO F001	F027

BE54 123 :

```

:
:
:
:(RPN )
F / V? XEQ F ENTER
.(V) value
V 53 2 D? 2 . 5 3 R/S
.(D) / value
./c 16 DECIMAL 1 6 R/S
16.0000
2.5300
MOST PRECISE R/S
.16 / ) 2 8/15 ▼
2 8/15
."8
(16 / ) FACTOR DENOM R/S
2 1/2 ▲
2 1/2
FIXED DENOM R/S
.16 / ) 2 8/16 ▲
.10 2.5300 R/S C [ ] FLAGS
2.5300 2 (2CF) . 0

```

/
.looping

```

D001 LBL D
D002 INPUT M
D003 INPUT N
D004 INPUT T
D005 GTO D001

```

XEQ label line (/)

number

(GTO)

/

.GTO

B A

B A

:

(RPN)

S001 LBL S

S002 INPUT A

S003 INPUT B

S004 RCL A

A

S005 RCL- B

.A - B

S006 STO A

A

S007 RCL B

S008 x<y?

A < B

S009 GTO S004

:

S010 VIEW A

A

:

S011 RTN

273733 :

(ISG DSE)

ISG /
() DSE ()

DSE variable ()

ISG variable ()

:BASIC FOR-NEXT

FOR-NEXT DSE

(ISG or DSE) DSE ISG shifted

()

FOR variable = initial-value TO final-value STEP increment =

.
. .
. .
. .

NEXT variable

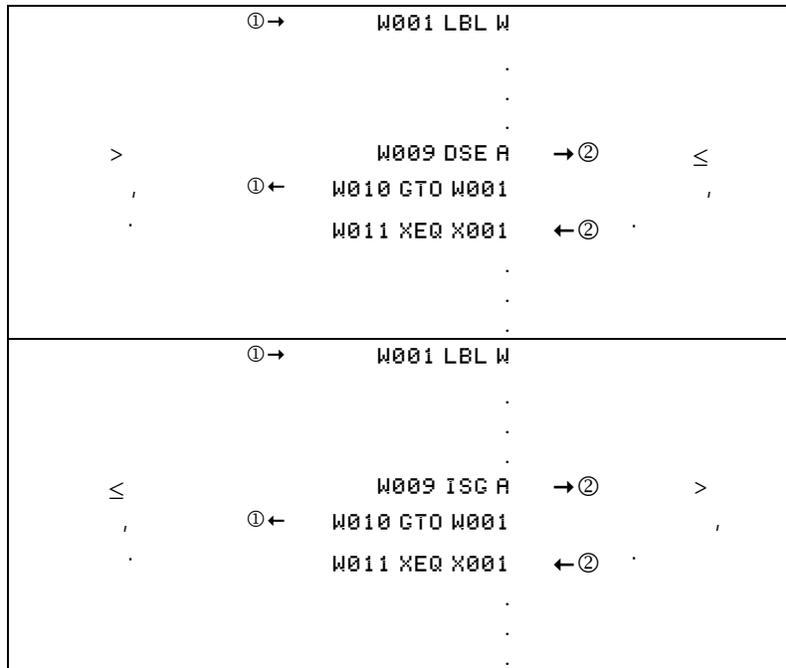
: ±cccccc.fffii

(12 1) cccccc ▪

() fff ▪

.000 fff

. () / ii ■
 .(1 /) 01 ii
 cccccc cccccc DSE , cccccc.fffii
 fff cccccc , - ii
 . fff ≤ cccccc
 cccccc ISG , cccccc.fffii
 fff cccccc , cccccc + ii
 . fff > cccccc



: ISG 0.050
 1 50
 (1.010) .RPN 10 ISG
 .Z

L001 LBL L
L002 1.01
L003 ST0 Z
L004 ISG Z
L005 GTO L004
L006 RTN

 VIEW  ,   ENTER
.11.0100

() / /
/
) , . (.
.(0) J (0) I : /
/ Z A
/ J I ■
.(Z A)
J I " (J) (I) ■
."
.(/ Z A) /
(J) J / (0) I
) (J) (I)) (J) (I)
.(J I
"J" "I"
J I , ,
J I J I .
.(J) "I"

STO I
RCL I
STO +,-, ×, ÷ I
RCL +,-, ×, ÷ I

INPUT I
VIEW I
FN d I j
SOLVE I

DSE I
ISG I
x <> I

(J) (I) /
(J) (I) () Z A
() Z A /
/ , J I (J) (I)

: (I)/(J)	: I/J
المتغير A أو التعريف/البطاقة A .	-1
.	.
.	.
.	.
. Z / Z	-26
n	-27
Σx	-28
Σy	-29
Σx ²	-30
Σy ²	-31
Σxy	-32
.	0
.	.
.	.
.	.
.800 /	800
INVALID <I> :	800> I -32< I
.	.
INVALID <J>: خطأ	800> J -32< J
.	.

VIEW(J) VIEW(I) INPUT(J),INPUT(I)

SUMS

. INPUT VIEW STO ,

(J) (I) =FN

/ (J) (I)

(J) (I)

, /

STO (I)/(J)	INPUT(I)/(J)
RCL(I)/(J)	VIEW(I)/(J)
STO +, -, ×, ÷, (I)/(J)	DSE(I)/(J)
RCL +, -, ×, ÷, (I)/(J)	ISG(I)/(J)
X<>(I)/(J)	SOLVE(I)/(J)
FN=(I)/(J)	FN d(I)/(J)]

(J)/(I)

-

/

(J) STO (I)

-

.A

STO(-1)

,

/

()

/

/

J

.ISG DSE

(J)/(I)

(J) (I)

(J) (I)

J

/

,

(

)

J

/

(

)

(J)

(I)

J I

(J) (I)

/

)

(J)

(I)

801

J I

```

:
:
(RPN )
A001 LBL A
A002 100
A003 STO I
A004 12345
" 0-100 " / " 12345 "
. 100 /
A005 STO (I)

.150 " 67890 "
." 0-150 "
A006 150
A007 STO I
A008 67890
A009 STO (I)

. 100 0
." 0-150 "
A010 100
A011 STO I
A012 0
A013 STO (I)

/ " INVALID (I)"
." 170"
A014 170
A015 STO I
A016 RCL (I)

A017 RTN

```

```

:
(A014 ) . " INVALID (I)" , .1
0 .2
37 . 0
800 .3

```

15



- - 7

.

.

.

:

.(" SOLVE ") .1

). [←] [FN=] label (/) : .2

.(

. [↵] [SOLVE] variable () : .3

FN=

.2 INTERRUPTED [R/S] [C]

[←] [VIEW]

[R/S]

SOLVE

- RPN ALG

SOLVE . / .1

.(FN=label " / ")

INPUT . INPUT .2

. INPUT .

.() INPUT

INPUT

, INPUT

.3

/ ALG RPN

$f(x) = g(x)$

"0" .-g(x)

.4

.11 / -

.X / INPUT

.RTN

ALG :

ALG

:"

$P \times V = N \times R \times T$

.(N/m2) = P

.() = V

moles = N

= R

(**8.314 J/mole-K** أو 0.0821 liter-atm/mole-K)

(K=°C + 273.1 :Kelvins) = T

/


```

: " "
:
: (RPN )
/ PRGM TOP
H001 LBL H
H002 SF 11
.11
EDC8 : )
          .(9
          H003 P×V=N×R×T
          H004 RTN
/ 0.0610
Checksum and length of program: DF52 21 :

```

PRGM
GTO . .

LBL H
 (1 SF)
 . 1
 EQN
 RCL P X
 RCL V X
 RCL N X
 RCL R X
 RCL T ENTER
 RTN

C

	:	:	:
			(RPN)
		0.0610	STO L
	" H"	0.0610	FN= H
.V	P	V?	SOLVE P
		2.0000	
.N	V 2	N?	R/S
		0.0050	
.R	N 0,005	R?	R/S
		0.0821	
.T	R 0,0821	T?	R/S
		297.1000	
	T	T?	ENTER 1 0 -
		287.1000	
	T 297,1	SOLVING	R/S
		P=	
	.P	0.0589	
		-0.0021	RCL L -
287.1	297.1		
)		
	.(

SOLVE

SOLVE

) /
.SOLVE variable () (X
:

FN= label (/)

SOLVE variable ()

SOLVE

(=)

)

.(

.SOLVE VIEW variable ()

)

.(14

;

"

. SOLVE :

.Y X

y x

:
: (RPN)

.X X001 LBL X

.X X002 24

X003 GTO L001

Checksum and length: 62A0 11 :

.Y Y001 LBL Y

.Y Y002 25

Y003 GTO L001

Checksum and length: 221E 11:

L001 LBL L

. / L002 STO I

L003 FN= F

L004 SOLVE(I)

L005 VIEW(I)

L006 RTN

Checksum and length: D45B 18 :

INPUT / $f(x,y)$ F001 LBL F

.

.

.

F010 RTN

-

- ()

8

```

:
.( " ∫ FN " ) .1
( / ) : .2
.( ) . [↵] [FN=] label
. [ENTER] : .3
. [↵] [∫] variable ( ) : .4
. FN=

INTERRUPTED [R/S] [C]
. .2

. [∫] [FN=] / [XEQ]
. [∫] [FN=]

: ∫ FN

- RPN ALG

. / .1
.( [FN=label] / )

```

```

INPUT          INPUT          .2
      INPUT
INPUT          .(          )
              INPUT
              .3
              .
              ALG  RPN          .
              /          .1
              .11  /          INPUT
.X          .RTN          .4
              :
              8

```

$$Si(t) = \int_0^t \left(\frac{\sin x}{x} \right) dx$$

```

:
:          /          S001 LBL S
:          )          S002 SIN(X)+X
:          .(OEE0 8
:          S003 RTN

```

.D57E 17

.(t = 2) 2 0 x

```

:           :           :
/           /           (RPN )
.Radians   (MODE) 2 (2RAD)
S           (←) FN= (S)
           .           2_ (0) ENTER (2)
           .           INTEGRATING (←) / (X)
           .2 0       =∫
           .           1.6054
/           .           1.6054 (MODE) 1 (1DEG)
           .

```

```

/           /           .
           .           /
           :           FN= label ( / )
           .           ∫ FN ≠ variable ( )
           ( =∫)       ∫ FN
           )           )
PSE ((←) (PSE))       .(
           ∫ FN       X           STOP ((R/S))
           (10 / )       PSE

```

FN :

16 " / - / "

$$\frac{1}{S\sqrt{2\pi}} \int_M^D e^{-\frac{(D-M)^2}{2S^2}} dD.$$

.F e^{((D-M)÷S)²÷2}

. / Q(D)

:Q

0001 LBL Q
0002 RCL M

. (X = D) 0003 RCL X

0004 FN= F

FN ÷ D | 0005

.D /

/

FN d variable() SOLVE variable ()

FN SOLVE

FN(j)

FN=label (/)

FN SOLVE

FN

FN ACTIVE SOLVE ACTIVE

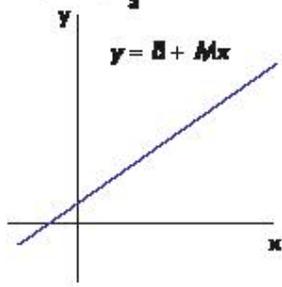
.((SOLVE)) SOLVE

FN SOLVE

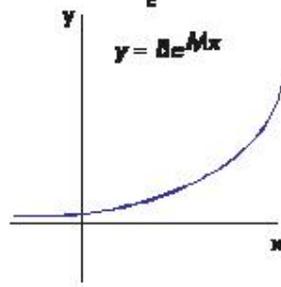
(14 " ")

/

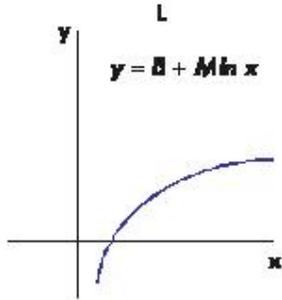
ملاءمة الخط الثابت/المستقيم



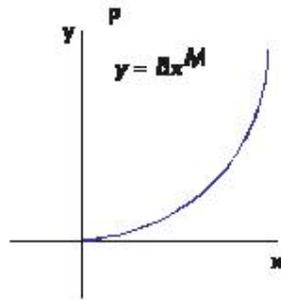
ملاءمة المنحنى الأسّي



ملاءمة المنحنى اللوغاريتمي



ملاءمة منحنى عمليات التفاضل/القدرة.



y x / y

A LOG<NEG>

.12 " / "

(RPN)

. /

	/	S001 LBL S
.X	0	S002 CF 0
Y	1	S003 CF 1
.Z		S004 GTO Z001

Checksum and length: 8E85 12 :

.

	/	L001 LBL L
.X	0	L002 SF 0
Y	1	L003 CF 1
.Z		L004 GTO Z001

Checksum and length: AD1B 12 :

.

	/	E001 LBL E
.X	0	E002 CF 0
Y	1	E003 SF 1
.Z		E004 GTO Z001

Checksum and length: D6F1 12 :

. /

	/	P001 LBL P
.X	0	P002 SF 0
Y	1	P003 SF 1

Checksum and length: 3800 9 :

 CLEAR 4 (4Σ)

	/	Z001 LBL Z
		Z002 CLΣ
		Z003 0

Checksum and length: 8611 10 :

/

		W001 LBL W
	1	W002 1

			(RPN)
			W003 +
X	/	X	W004 STO X
	.	X	W005 INPUT X
		... 0	W006 FS? 0
	.	X /	W007 LN
	.		W008 STO B
		. Y /	W009 INPUT Y
		...1	W010 FS? 1
	.	Y /	W011 LN
	.		W012 STO R
	.		W013 RCL B
	y x	R B	W014 Σ+
	.	Y X	W015 GTO W001

Checksum and length: 9560 46 :

" Undo	"	U001 LBL U
		U002 RCL R
		U003 RCL B
		U004 Σ-
	Y X	U005 GTO W001

Checksum and length: A79F 15 :

.		R001 LBL R
.	.	R002 r
.	.R	R003 STO R
.	.	R004 VIEW R

(RPN)

	.b		R005 b
.b	/	1	R006 FS? 1
			R007 eX
	.B	b	R008 STO B
	.		R009 VIEW B
	.m		R010 m
	.M	m	R011 STO M
	.		R012 VIEW M

Checksum and length: 850C 36 :

	.()		Y001 LBL Y
.X	x	,	Y002 INPUT X
	...	0	Y003 FS?0
	K001		Y004 GTO K001
	M001		Y005 GTO M001
	.Y	ŷ	Y006 STO Y
.Y	y	,	Y007 INPUT Y
	...	0	Y008 FS?0
	O001		Y009 GTO O001
	N001		Y010 GTO N001
	X	ŷ	Y011 STO X
	.		Y012 GTO Y001

Checksum and length: C3B7 36 :

(RPN)

. /

\hat{y}

A001 LBL A

A002 RCL M

A003 RCL× X

A004 RCL+ B

$$\hat{y} = MX + B$$

A005 RTN

Checksum and length: 9688 15 :

. /

\hat{x}

G001 LBL G

G002 RCL Y

G003 RCL- B

G004 RCL÷ M

$$\hat{x} = (Y - B) \div M$$

G005 RTN

Checksum and length: 9C0F 15 :

. /

\hat{y}

B001 LBL B

B002 RCL X

B003 LN

B004 RCL× M

B005 RCL+ B

$$\hat{y} = M \ln X + B$$

B006 RTN

Checksum and length: 889C 18 :

. /

\hat{x}

H001 LBL H

H002 RCL Y

H003 RCL- B

H004 RCL÷ M

H005 e^X

$$\hat{x} = e^{(Y - B) \div M}$$

H006 RTN

Checksum and length: 0DBE 18 :

(RPN)

.	\hat{y}	C001 LBL C
		C002 RCL M
		C003 RCLx X
		C004 e ^X
.	$\hat{y} = Be^{MX}$	C005 RCLx B
.	M005	C006 GT0 M005

Checksum and length: 9327 18 :

.	\hat{x}	I001 LBL I
		I002 RCL Y
		I003 RCL÷ B
		I004 LN
.	$\hat{x} = (\ln(Y ÷ B)) ÷ M$	I005 RCL÷ M
.	N005	I006 GT0 N005

Checksum and length: 7219 18 :

.	/	\hat{y}	D001 LBL D
			D002 RCL X
			D003 RCL M
			D004 y ^X
.		$\hat{y} = B(X^M)$	D005 RCLx B
.		K005	D006 GT0 K005

Checksum and length: 11B3 18 :

.	/	\hat{x}	J001 LBL J
			J002 RCL Y
			J003 RCL÷ B
			J004 RCL M
			J005 1/x
.		$\hat{x} = (Y/B)^{1/M}$	J006 y ^X
.		O005	J007GT0 O005

Checksum and length: 8524 21 :

(RPN)

```
. B001 D001 / K001 LBL K
...1 K002 FS?1
D001 K003 XEQ D001
B001 K004 XEQ B001
Y006 K005 GTO Y006
```

Checksum and length: 4BFA 15 :

```
.A001 C001 / M001 LBL M
...1 M002 FS?1
C001 M003 XEQ C001
A001 M004 XEQ A001
Y006 M005 GTO Y006
```

Checksum and length: 1C4D 15 :

```
.H001 J001 / O001 LBL O
...1 O002 FS?1
J001 O003 XEQ J001
H001 O004 XEQ H001
Y011 O005 GTO Y011
```

Checksum and length: 0AA5 15 :

```
.G001 I001 / N001 LBL N
...1 N002 FS?1
I001 N003 XEQ I001
G001 N004 XEQ G001
Y011 N005 GTO Y011
```

Checksum and length: 666D 15 :

:

1 / . X / 0 /

. Y /

1 .1001 N 1

.G001

:

C . .1

: XEQ .2

/ S ENTER .

. L ENTER .

. E ENTER .

/ P ENTER .

.R/S X .3

.R/S Y .4

. 4 3 .5

R/S (Y?value()) 3 R/S

XEQ U ENTER (X?value())

4 ()

.3 . XEQ ENTER

.R XEQ ENTER .6

. B R/S .7

. M R/S .8

. \hat{y}, \hat{x} X?value() R/S .9

R/S X?value() x x \hat{y} .10

.(Y?) \hat{y}

Y?value() وذلك حتى تستطيع رؤية R/S y \hat{x} .11

.(X?) \hat{x} R/S y

.11 10 .12

.2

.13

:

(/ y /) B

(/ /) M

R

x X

y Y

:1

.101 y x 37 x y

34.6 35.1 36.2 37.9 38.6 40.5 X

94 95.5 97.5 100 102 104.5 Y

:

:

:

(RPN)

X? XEQ S ENTER

1.0000

x Y? 4 0 . 5 R/S

value

y X? 1 0 4 . 5

2.0000 R/S

x Y? 3 8 . 6 R/S

104.5000

y X? 1 0 2 R/S

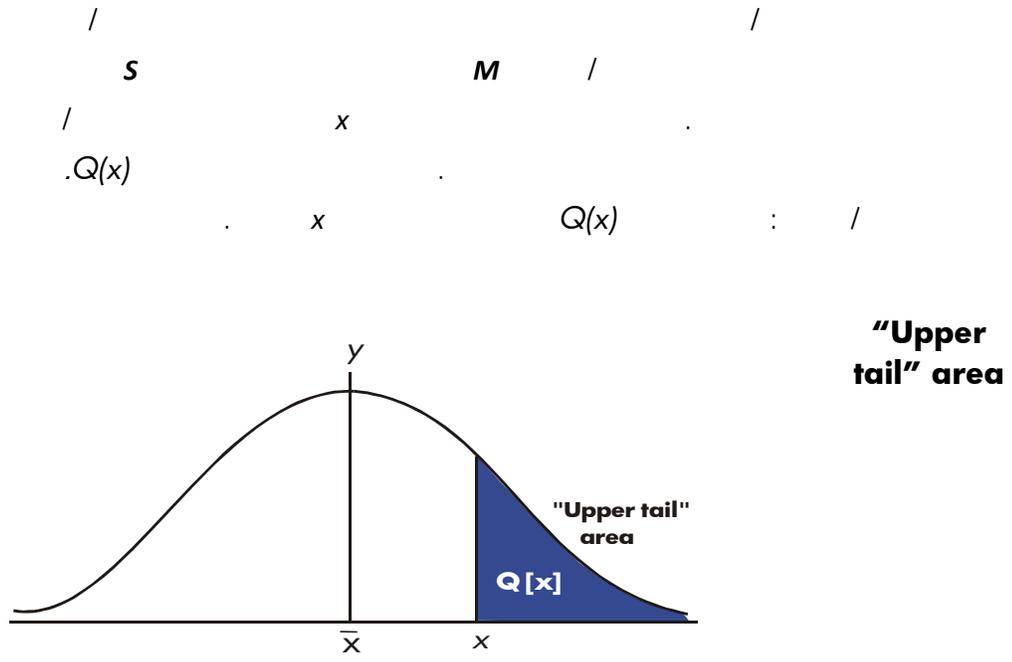
3.0000

37,9 379

	:		:		:	(RPN)
		x		Y?		3 7 9 R/S
				102.0000		
		X?		X?		R/S
				4.0000		
				X?		XEQ U ENTER
				3.0000		
		x		Y?		3 7 . 9 R/S
				102.0000		
		y		X?		1 0 0 R/S
				4.0000		
		x		Y?		3 6 . 2 R/S
				100.0000		
		y		X?		9 7 . 5 R/S
				5.0000		
		x		Y?		3 5 . 1 R/S
				97.5000		
		y		X?		9 5 . 5 R/S
				6.0000		
		x		Y?		3 4 . 6 R/S
				95.5000		
		y		X?		9 4 R/S
				7.0000		
				R=		XEQ R ENTER
				0.9955		
		.B		B=		R/S
				33.5271		
		.M		M=		R/S
				1.7601		
		x		X?		R/S
				7.0000		
		. \hat{y}	X	37		3 7 R/S
				98.6526		
		. \hat{x}	Y	101		1 0 1 R/S
				38.3336		

() 1
)
 (y x

<i>I</i>	<input type="text" value="XEQ"/> <input type="text" value="P"/> <input type="text" value="ENTER"/>	<input type="text" value="XEQ"/> <input type="text" value="E"/> <input type="text" value="ENTER"/>	<input type="text" value="XEQ"/> <input type="text" value="L"/> <input type="text" value="ENTER"/>	To start:
0.9959	0.9945	0.9965		R
8.9730	51.1312	-139.0088		B
0.6640	0.0177	65.8446		M
98.6845	98.5870	98.7508		when $X=37$) \hat{Y} Y (
38.3151	38.3628	38.2857		when \hat{x} X (Y=101)



$$Q(x) = 0.5 - \frac{1}{\sigma\sqrt{2\pi}} \int_{\bar{x}}^x e^{-((x-\bar{x})/\sigma)^2/2} dx$$

HP 35s

Newton

Q(x)

x

```

)
(RPN
/
S001 LBL S
/
S002 0
M /
S003 STO M
S004 INPUT M
S005 1
S /
S006 STO S
S007 INPUT S
S008 RTN

```

Checksum and length: 70BF 26 :

```

.X Q(X) D001 LBL D
X / D002 INPUT X
D003 XEQ Q001
VIEW Q D004 STO Q
Q(X) D005 VIEW Q
Q(X) D006 GTO D001

```

Checksum and length: 042A 18 :

```

.Q(X) X I001 LBL I
Q(X) / I002 INPUT Q
/ I003 RCL M
.Xguess X I004 STO X

```

Checksum and length: A970 12 :

```

T001 LBL T
(Q(Xguess)- Q(X)) T002 XEQ Q001

```

```

)
(RPN

```

T003 RCL- Q
 T004 RCL X
 T005 STO D
 T006 R↓
 T007 XEQ F001
 T008 RCL÷ T
 T009 ÷
 T010 STO+ X
 T011 ABS
 T012 0.0001
 T013 x<y?
 T014 GTO T001

X_{guess}

X_{guess}

X_{guess}

X

X

Checksum and length: EDF4 57 :

$.Q(x)$

T015 RCL X
 T016 VIEW X
 T017 GTO I001

LBL F

Q001 LBL Q
 Q002 RCL M
 Q003 RCL X
 Q004 FN= F
 FN d D f Q005
 Q006 2
 Q007 π
 Q008 x

.D /

/

)
 (RPN

$$S \times \sqrt{2\pi}$$

×√ Q009
Q010 RCL× S

/

Q011 STO T

Q012 ÷
Q013 +/-
Q014 0.5
Q015 +

/

Q0016 RTN

Checksum and length: 8387 52 :

$$.e^{-((X-M)÷S)^2÷2} /$$

F001 LBL F

F002 RCL D
F003 RCL- M
F004 RCL÷ S
F005 ×²
F006 2
F007 ÷
F008 +/-
F009 e^X
F010 RTN

Checksum and length: B3EB 31 :

:

/

.

:

±3

/

±5

. 1/x 2 Q 0,5

(T I) /

/

:

- .1 C
- .2 XEQ S ENTER
- .3) R/S / M
- .4) R/S (R/S S
- .5 (R/S 1 Q(X) X
- .6 XEQ D ENTER X Q(X)
- .7 Q(X) R/S X
- .8 R/S X Q(X)
- .9 XEQ I ENTER X Q(X)
- .10 X R/S Q(X)
- .11 R/S Q(X) X

:

/

D
M
Q
S
T
X

$$S \times \sqrt{2\pi}$$

/

:1

"3σ"

/

000 10

M

"3σ"

.S 1

:

:

(RPN)

M? XEQ S ENTER
0.0000

.M

S? R/S
1.0000

.S 1

1.0000 R/S

X

X? XEQ D ENTER
value

X 3

Q= 3 R/S
0.0013

.Q(X)

/

13.4984 1 0 0 0 0
X

."2σ"

. R/S

:

:

(RPN)

X? R/S
3.0000

2 X

Q= 2 R/S
0.0228

.Q(X)

227.5012 1 0 0 0 0
X

:2

.3 15

.55

/

/
10

/
90

:

:

(RPN)

M? XEQ S ENTER
0.0000
S? 5 5 R/S
1.0000
15.3000 1 5 . 3 R/S

/ 55
3 15

.X

X? XEQ D ENTER

value

X 90

Q= 9 0 R/S

.Q(X)

0.0111

.90

:

:

(RPN)

Q? XEQ I ENTER
0.0111
X= 0 . 1 R/S
74.6077

Q(X) (10) 0.1
.X

:

Q? R/S
0.1000

20 100) 0,8

X= 0 . 8 R/S
42.1232

.X Q(X) (

x_1

S_{xy}

$f_n \dots f_2 f_1$

$x_n \dots x_2$

$$S_{xg} = \sqrt{\frac{\sum x_i^2 f_i - (\sum x_i f_i)^2}{(\sum f_i) - 1}}$$

/

:

(ALG)

S001 LBL S

(- 32 - 27)

S002 CLZ

S003 0

.N

S004 STO N

Checksum and length: E5BC 13 :

I001 LBL I

.X

I002 INPUT X

.F

I003 INPUT F

.N

I004 1

I005 STO B

.f_i

I006 RCL F

Checksum and length: 3387 19 :

/

F001 LBL F

F002 -27

.- 27

F003 STO I

F004 RCL F

.- 27

$\sum f_i$

F005 STO+(I)

$\times f_i$

F006 RCL× X

F007 STO Z

F008 -28

.- 28

F009 STO I

F010 RCL Z

.- 28

$\sum x_i f_i$

F011 STO+(I)

$\times x_i^2 f_i$

F012 RCL× X

.- 30

F013 STO Z

F014 -30

F015 STO I

F016 RCL Z

.- 30

$\sum x_i^2 f_i$

F017 STO+(I)

. N ()

F018 RCL B
 F019 STO+ N
 F020 RCL N
 F021 RCL F
 F022 ABS
 F023 STO F
 F024 VIEW N

/

F025 GT0 I001

Checksum and length: F6CB 84 :

G001 LBL G
 G002 sX
 G003 STO S
 G004 VIEW S

/

\overline{X} G005

G006 STO M
 G007 VIEW M

G008 GT0 I001

Checksum and length: DAF2 24 :

U001 LBL U
 U002 -1
 U003 STO B
 U004 RCL F

N

f_i

U005 +/-

/

/

U006 STO F
 U007 GT0 F001

Checksum and length: 03F4 23 :

:

/

			:	
		C	.	.1
			XEQ S ENTER	.2
		R/S	() x_i	.3
			R/S () f_i	.4
			VIEWing R/S	.5
			5 3	.6
4	R/S		(f_i x_i)	
	3	R/S	XEQ U ENTER	
			XEQ G ENTER	.7
			R/S	.8
	.3	R/S		.9
			: .2	
			X	
			F	
			N	
			S	
			/ M	
			i	
		Σf_i	Register -27	
		$\Sigma x_i f_i$	Register -28	
		$\Sigma x_i^2 f_i$	Register -30	

:

6	5	4	3	2	1	x_i
37	22	15	13	8	5	
115	73	43	37	26	17	f_i

		: (RPN)	
	x_i	X?	XEQ 5 ENTER
	value		
f_i	X 5	F?	5 R/S
	value		
	F 17	N=	1 7 R/S
	value	1.0000	
	x_i	X?	R/S
	value	5.0000	
	f_i	F?	8 R/S
	value	17.0000	
	F	N=	2 6 R/S
	value	2.0000	
	x_i	X?	R/S
	value	8.0000	
	f_i	F?	1 4 R/S
	value	26.0000	
	F	N=	3 7 R/S
	value	3.0000	
:U	.x3	13	14
		N=	XEQ U ENTER
	value	2.0000	
	x_i	X?	R/S
	value	14.0000	
	f_i	F?	1 3 R/S
	value	37.0000	
	F	N=	R/S
	value	3.0000	
	x_i	X?	R/S
	value	13.0000	
	f_i	F?	1 5 R/S
	value	37.0000	
	F	N=	4 3 R/S
	value	4.0000	
	x_i	X?	R/S
	value	15.0000	
	f_i	F?	2 2 R/S
	value	43.0000	
	F	N=	7 3 R/S
	value	5.0000	

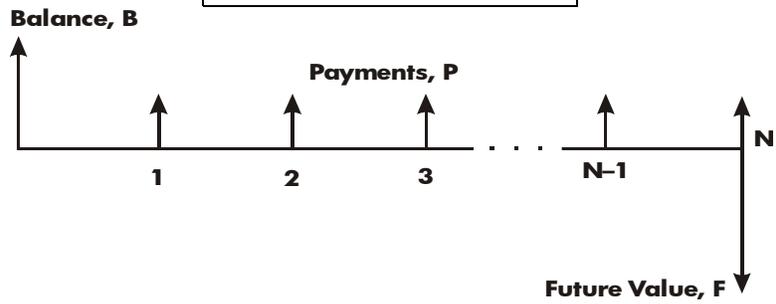
	x_i		X?	R/S
			22.0000	
	f_i		F?	3 7 R/S
			73.0000	
			N=	1 1 5 R/S
			6.0000	
			S=	XEQ G ENTER
(sx)			11.4118	
			M=	R/S
	(\bar{X})	/	23.4084	
	.VIEW	/	23.4084	C

(TVM) " "

: TVM

$$P \left[\frac{1 - (1 + I/100)^{-N}}{I/100} \right] + F(1 + (I/100))^{-N} + B = 0$$

Balance
Payments
Future Value



(F P B) /

$$Px100 \times (1 - (1 + I \div 100)^{-N}) \div I + F \times (1 + I \div 100)^{-N} + B$$

(RPN)

/ EQN LIST TOP EQN

Px 100_ RCL P x 1 0 0

Px100x(1- x () 1 -

Px100x(1-(1+ () 1 +

←0x(1-(1+I÷ 100) RCL I ÷ 1 0 0

←(1-(1+I÷100)^ > y^x

←(1+I÷100)^-N +/- RCL N >

←100)^-N)÷I+F ÷ RCL I + RCL F

←^-N)÷I+F×(1+ x

←I+F×(1+I÷100) () 1 + RCL I

←×(1+I÷100)^-N ÷ 1 0 0 >

←1+I÷100)^-N+B y^x +/- RCL N

Px100x(1-(1+I÷ + RCL B

ENTER

OK=CEFA SHOW (hold)

LN=41

DIVIDE BY 0

/ TVM

SOLVE

1 R STO 1

.(R SOLVE 1)

: SOLVE

.1 **1** **→** **STO** **1** | TVM .1
 | **↓** **↑** | .EQN .2
 | | .TVM
 | | : .3
 | | **→** **SOLVE** **N** |
 | | **→** **SOLVE** **I** |
 12 **×** | *i* | / | / |
	→ **SOLVE** **B**		
	→ **SOLVE** **P**		
	→ **SOLVE** **F**		
	R/S	/	.4
	R/S	.5	
 .2 | | .6

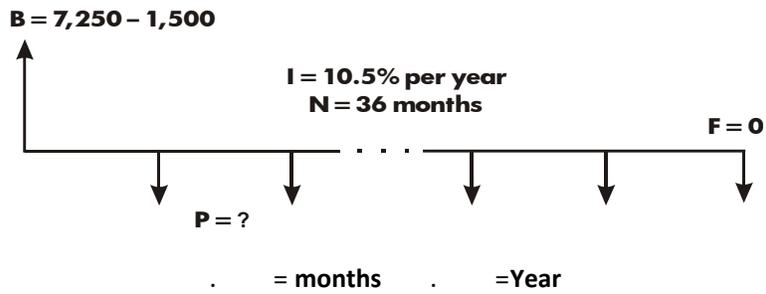
SOLVE
 :
 N
 I
) .
 / 12 %15
 .15÷12=1.25% *i*
 B
 P
 F

%5 10

(36)

.1

.\$500 1



(RPN)

FIX **DISPLAY 1 (1FIX) 2**

.2

P×100×(1-(1+I÷**EQN** (▼ as needed)

.TVM

I? **SOLVE P**

value

I? **1 0 . 5 ENTER**

0.88 **1 2 ÷**

I 88 0 N? **R/S**

.N / value

N 36 F? **3 6 R/S**

.F / value

.F B? **0 R/S**

.B / value

B

B? 7 2 5 0 ENTER
5,750.00 1 5 0 0 -

B 5750

SOLVING R/S

.P /

P=
-186.89

)

/

/

(

\$10

.2

```

:                               :
                                (RPN )
                                EQN
                                P×100×(1-(1+I)÷→
                                .TVM
.P / .I                               P?
                                -186.89
                                /                               P?
                                -186.89
                                /                               P?
                                -176.89
.P 89 176 -                               N?
                                36.00
                                /                               R/S
/ .N 36                               F?
                                0.00
                                .F
/ .F 0                               B?
                                5,750.00
                                .B
.B 5750                               SOLVING
                                I=
                                0.56
                                6.75
                                1 2 X

```

(%75 6) .3

DIVIDE BY 0

2 / /

```

:                               :
                                (RPN )
                                EQN
                                P×100×(1-(1+I)÷→
                                .TVM
.P / F                               P?
                                -176.89

```

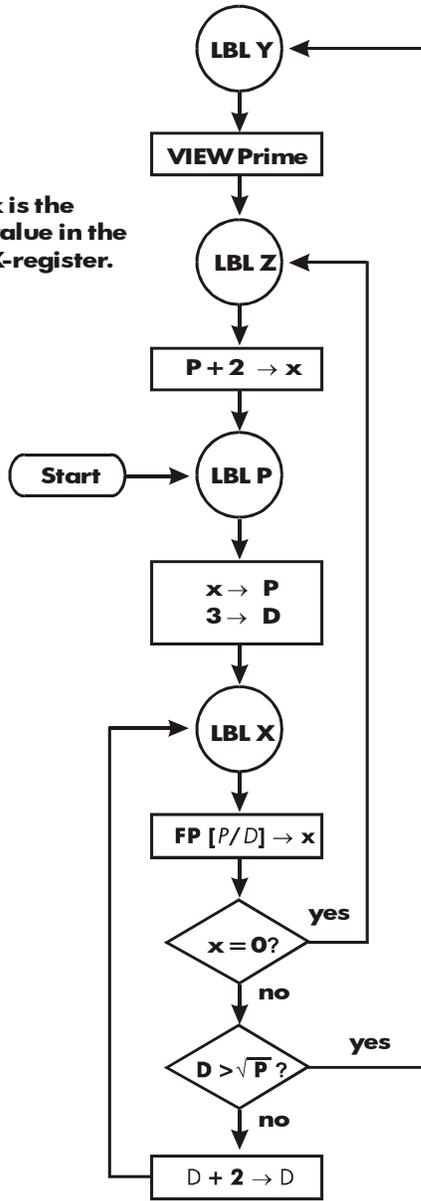
/	P		I?	R/S
		.I	0.56	
I	0.56		N?	R/S
	.N	/	36.00	
.N	24		B?	2 4 R/S
	.B	/	5,750.00	
B	5750		SOLVING	R/S
	F		F=	
			-2,047.05	
FIX		/		← DISPLAY 1
		4		(1FIX) 4

) .3 (1

() 2

x :
.X

Note: x is the value in the X-register.



```

)
(ALG
P Y001 LBL Y
Y002 VIEW P
Checksum and length: 2CC5 6 :
.P 2 Z001 LBL Z
Z002 2+ P
Checksum and length: EFB2 9 :
.P P001 LBL P
P002 LASTx(A)P
P003 FP(P+2)
P004 x<>y
P005 0
P006 x=y?
.P P P007 1+P(A)P
.D 3 P008 3(A)D
Checksum and length: EA89 47 :
P X001 LBL X
.P ÷ D X002 FP(P÷D)
) / ( X003 x=0?
X004 GTO Z001
X005 SQRT(P)
X006 x<>y
X007 D
X008 x>y?
X009 GTO Y001
X010 2+D(A)D
X011 GTO X001
Checksum and length: C6B5 53 :

```

: /

:

C

.1

.3

.2

P

XEQ **P** **ENTER**

.3

R/S

.4

:

P

P

D

:

.3

:

789

:

:

(ALG)

.789

P=
797.0000

7 **8** **9** **XEQ**
P **ENTER**

.797

P=
809.0000

R/S

$$\mathbf{v}_1 \times \mathbf{v}_2 = (YW - ZV)\mathbf{i} + (ZU - XW)\mathbf{j} + (XV - YU)\mathbf{k}$$

$$\mathbf{v}_1 = X\mathbf{i} + Y\mathbf{j} + Z\mathbf{k}$$

$$\mathbf{v}_2 = U\mathbf{i} + V\mathbf{j} + W\mathbf{k}$$

(RPN)

R001 LBL R

X R002 INPUT X

Y R003 INPUT Y

Z R004 INPUT Z

R001 R005 GTO R001

Checksum and length: D82E 15 :

E001 LBL E

W V U Z Y X E002 RCL X

E003 STO U

E004 RCL Y

E005 STO V

E006 RCL Z

E007 STO W

R001 E008 GTO R001

Checksum and length: B6AF 24 :

(RPN)

		C001 LBL C
		C002 RCL Y
		C003 RCL× W
		C004 RCL Z
		C005 RCL× V
.X /	(YW - ZV)	C006 -
		C007 STO A
		C008 RCL Z
		C009 RCL× U
		C010 RCL X
		C011 RCL× W
.Y /	(ZU - WX)	C012 -
		C013 STO B
		C014 RCL X
		C015 RCL× V
		C016 RCL Y
		C017 RCL× U
		C018 -
.Z /	(XV - YU)	C019 STO Z
		C020 RCL A
	.X /	C021 STO X
		C022 RCL B
	.Y /	C023 STO Y
		C024 GTO R001
	R001	

Checksum and length: 838D 72 :

:

$$v_2 = i - 2j + 3k \text{ و } v_1 = 2i + 5j + 4k$$

	:		:		:
			value	X?	XEQ R ENTER
			value	v?	1 R/S
			value	z?	2 +/- R/S
			value	X?	3 R/S
			1	X?	XEQ E ENTER
v2		E	1		
	.W	V U			
			-2	v?	2 R/S
			3	z?	5 R/S
			2	X?	4 R/S
			23	X?	XEQ C ENTER
			-2	v?	R/S
			-9	z?	R/S



A



.

"

." /

.Error! Bookmark not defined.

/

:

A-5 :

:

.(2 3 - 1) [↩] [DISPLAY] 5 (5.) / :

:

.(21-1) [↩] [DISPLAY] :

/ / :

) x / CLEAR [↩] [CLEAR] :

(X

.

. (2.51E-13) "E" :

. (2.51x10⁻¹³) / :

. MEMORY FULL ; :

.(B) . / :

radians π (/) :

. 12 π / :

/ :

.3GRD 2RAD **MODE** 1DEG / / :

.1 " " . :

. **FDISP** :

/

:

	.(	113°	32°)	45°	0°	:	■
149°	-4°)	65°			-20°	:	■
						.(
	104°)	40°		90%	:		■
						.(

3



MEMORY CLEAR

)

(

:

-

.1

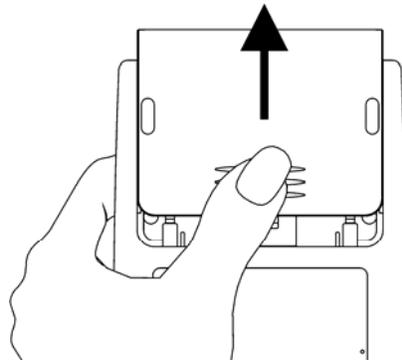


.()

.2

/

.3



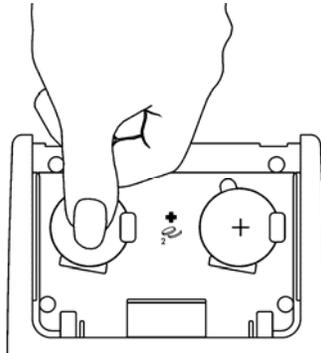
.4



(+)

CR2032

.5



(+)

5 4

.6

.7

C

.8

.Error! Bookmark not defined.

(4-1)

/ ■

:(3-1)

GTO

C

.1

i

R/S

C

/ .2

MEMORY CLEAR

/

MEMORY

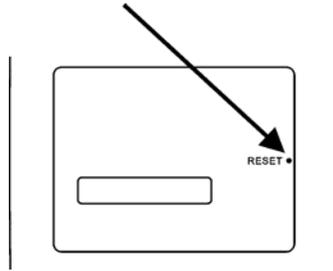
(" ") .3

.CLEAR

.3

.RESET

RESET



:

■

.() .1

.2

.A-1 " / "

. Error! Bookmark not defined. .3



:

XEQ

C

-1

-2

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.KBD 01

:
 [R/S] → [GTO] → [XEQ] → [MODE] → [^] → [←] → [→] → [RCL] → [R↓] → [x↔y] → [i]
 → [v] → [SIN] → [COS] → [TAN] → [√x] → [y^x] → [1/x] → [ENTER] → [+/-] → [E] → [()] → [←] → [EQN] → [7]
 → [8] → [9] → [÷] → [↵] → [4] → [5] → [6] → [x] → [↵] → [1] → [2] → [3] → [-] → [C] → [0] → [.]
 → [Σ+] → [+]
 KBD

.() .

.(4) : .4

.5 358-OK
358-FAIL

([GTO] [C]) Reset)

/(Error! Bookmark not defined.

) Reset .5
([GTO] [C])

[MODE] [C]



12 : HP 35s

HP HP .1

HP

HP

HP HP .2

HP HP

HP /

HP HP .3

HP

HP .4

() () :

() HP

()

()

HP .6

.7

Hewlett

Packard

()

/

HP .8

HP

:

/

		AP
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03-9841-5211، 1300-551-664
010-68002397
2805-2563
+65 6100 6682
+852 2805-2563
+65 6100 6682
09-574-2700
+65 6100 6682
6100 6682
2-561-2700
+852 2805-2563
+65 6100 6682
+65 6100 6682

	:	EMEA
01 360 277 1203		
02 620 00 86		
02 620 00 85		
296 335 612		
82 33 28 44		
09 8171 0281		
01 4993 9006		
069 9530 7103		
210 969 6421		
020 654 5301		
01 605 0356		
02 754 19 782		
2730 2146		
23500027		
021 318 0093		
495 228 3050		
0800980410		
913753382		
08 5199 2065		
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022 567 5308 (الاطالية)		
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 0-800-990-011 ♦ 877-219-8671
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 1-800-711-2884
 001-800-872-2881 ♦ 800-711-2884
 1-800-0164 ♦ 800-711-2884
 001-800-711-2884
 (009) 800-541-0006
 0-800-10111
 1-877 232 0589
 1-800-478-4602
 01-800-711-2884
 1-800-711-2884
 1-800-711-2884
 156 ♦ 800-711-2884
 1-800-711-2884
 01-800-711-2884
 1-800-711-2884
 0004-054-177
 0-800-474-68368 (0-800 HP INVENT)

	:	NA
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800-HP INVENT		

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15

B

.FCC

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/

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/

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.FCC

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(2)

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取扱説明書に従って正しい取り扱いをして下さい。

:



B

/

(/) /

/

30 HP 35s

FN SOLVE

(

)

(

"

"

FN)

.

/

MEMORY FULL

:

()

/

(6

"

/

"

)

(.13

"

/

"

)

(

CLEAR 3

(3ALL))

/

/

MEM

```

: /
EQN LIST TOP ) . / EQN .1
.(
( [v] [^] ) .2
( ) ( ) [↵] SHOW .3
CK=382E LN=41
: /
/ [↵] MEM 2 (2PGM) .1
/ [v] [^] ) .2
LBL F LN=57 .(
( ) ( ) [↵] SHOW : .3
CK=90C9 LN=57
: /
. .1
CK=AB71 LN=15 [↵] SHOW .2

```

```

SOLVE /
INPUT VIEW ] FN
.( )

```

```

[GTO] [C]

```

/

.RESET

/

.  CLEAR **3** (3ALL)

/

/

/

/

:()

. **C**

.1

. **R/S**

.2

(

) . **i**

.3

MEMORY CLEAR

(/)	. /	
<p data-bbox="592 352 625 384">/</p> <p data-bbox="634 415 678 447">", "</p> <p data-bbox="586 472 678 504">"1,000"</p> <p data-bbox="613 529 678 560">4095</p> <p data-bbox="618 588 678 619">FIX 4</p> <p data-bbox="609 676 630 707">/</p> <p data-bbox="641 739 678 770">xiy</p> <p data-bbox="527 940 678 972">EQN LIST TOP</p> <p data-bbox="609 997 630 1029">/</p> <p data-bbox="560 1117 678 1148">PRGM TOP</p> <p data-bbox="609 1173 630 1205">/</p> <p data-bbox="522 1283 544 1314">/</p> <p data-bbox="522 1339 544 1371">/</p> <p data-bbox="630 1459 678 1491">RPN</p>	<p data-bbox="909 940 1060 972">EQN LIST TOP</p> <p data-bbox="990 997 1011 1029">/</p> <p data-bbox="941 1117 1060 1148">PRGM TOP</p> <p data-bbox="990 1173 1011 1205">/</p> <p data-bbox="904 1283 925 1314">/</p> <p data-bbox="904 1339 925 1371">/</p>	<p data-bbox="1177 239 1198 270">/</p> <p data-bbox="1177 296 1198 327">/</p> <p data-bbox="1177 352 1198 384">/</p> <p data-bbox="1079 529 1286 560">(/ c) /</p> <p data-bbox="1242 676 1263 707">/</p> <p data-bbox="1286 739 1307 770">/</p> <p data-bbox="1274 877 1295 909">/</p> <p data-bbox="1193 1054 1334 1085">/ = FN</p>

/

.X

/

.(" 2)

/

➡ CLEAR **5** (5STK) **➡** CLEAR **1** (1X) **Σ-** **Σ+** ENTER

-T -Z -Y .X

CLx **←** **C**

/

INPUT /

(X)

: /

DEG, RAD, GRAD	FIX, SCI, ENG, ALL	DEC, HEX, OCT, BIN	CLVARS
PSE	SHOW	RADIX . RADIX ,	CLΣ
OFF RCL +	STOP R/S	^ and v	C * and ← *
MEM 1 (1VAR)**	MEM 2 (2PGM)**	GTO . .	GTO . label nnn
EQN	FDISP		PRGM
		xiy r θ a	UNDO
			.CLx *
			**
			{PGM} XEQ {VAR} ENTER

LAST X /

	:RPN	LAST X	X
	+, -, ×, ÷	, x ² , √x	e ^x , 10 ^x
	LN, LOG	$\sqrt[y]{x}$	l/x, INT÷, Rmdr
	SIN, COS, TAN	ASIN, ACOS, ATAN	∩ ∩
	SINH, COSH, TANH	ASINH, ACOSH, ATANH	IP, FP, SGN, INTG, RND, ABS
	%, %CHG	Σ+, Σ-	RCL+, -, ×, ÷
		HMS→, →HMS	→DEG, →RAD
	nCr nPr	!	ARG
	CMPLX +, -, ×, ÷	CMPLX e ^x , LN, y ^x , 1/x	CMPLX SIN, COS, TAN
	→kg, →lb	→°C, →°F	→cm, →in
	→l, →gal	→KM →MILE	

.LAST X /c

LASTx x variable ()

.LASTx variable ()

: LAST X ALG /

.ALG

/

RPN

T, Z Y X

. REGT REGZ REGY REGX /

. **R** **EQN**

< **>**

.-T -Z -Y -X

ENTER

. REGT REGZ REGY REGX

EQN

REGX x REGY x REGZ x REGT

.T ZY

Z Y.X

.X

.HP35s

C

ALG :

ALG

: ALG /

( LN  e^x  LOG  10^x)

16 2 8 /

.ALG

MODE 4 (4ALG)

ALG

ALG

ALG

/

.1



(!)

.2

TAN SIN COS

/

.3

FP IP RAND RND % $\sqrt[3]{x}$ π \sqrt{x} $1/x$ x^2 LN LOG ATAN ASIN ACOS

10^x e^x ABS Rmdr INT÷ %CHG nCr nPr SGN INTG

$.y^x$ $\sqrt[3]{y}$.4

.+/- .5
 ÷ × .6
 - + .7
 = .8

ALG

.ALG

ALG

/

:ALG

($\frac{x}{y}$ y^x) /
 (%CHG %)
 (nPr nCr)
 (INTG 3 (3Rmdr) INTG 2 (2INTG÷))

(÷ × − +)

ALG

.ENTER

:

12+3
 15.0000
 12-3
 9.0000
 12×3
 36.0000
 12÷3
 4.0000

:

1 2 + 3 ENTER
 1 2 - 3 ENTER
 1 2 × 3 ENTER
 1 2 ÷ 3 ENTER

:

12 + 3
 12 - 3
 12 × 3
 12 ÷ 3

10 14

nCr(24,6) nCr 24 6
134,596.0000 ENTER

INTG 3 (3Rmdr) INTG 2 (2INTG÷)

INTG 2 (2INTG÷) Integer 1 Integer 2. ENTER

Integer 1:1

INTG 3 (3Rmdr) Integer 1 Integer 2. ENTER

Integer 2:2

9÷58

IDIV(58,9) INTG 2 (2INTG÷)
6.0000 5 8 9 ENTER
RMDR(58,9) INTG 3 (3Rmdr) 5
4.0000 8 9 ENTER

$$\frac{30}{85-12} \times 9$$

MODE 1 (1DEG)

:	:	:	:
SIN(30) 0.5000	SIN 3 0 ENTER	Sine of x.	x
COS(60) 0.5000	COS 6 0 ENTER	Cosine of x.	x
TAN(45) 1.0000	TAN 4 5 ENTER	Tangent of x.	x /
ASIN(1) 90.0000	ASIN 1 ENTER	Arc sine of x.	x
ACOS(0) 90.0000	ACOS 0 ENTER	Arc cosine of x.	x
ATAN(0) 0.0000	ATAN 0 ENTER	Arc tangent of x.	x /

:	:	:	:
ENTER	HYP SIN,	Hyperbolic sine of x (SINH).	x
ENTER	HYP COS,	Hyperbolic cosine of x (COSH).	x
ENTER	HYP TAN,	Hyperbolic tangent of x (TANH).	x /
ENTER	HYP ASIN,	Hyperbolic arc sine of x (ASINH).	x
ENTER	HYP ACOS,	Hyperbolic arc cosine of x (ACOSH).	x
ENTER	HYP ATAN,	Hyperbolic arc tangent of x (ATANH).	x /

/

```

:           :           :
IP(2.47)  [←] [INTG] [6] (6IP) [2] [.] [4] [7] 47 2
2.0000   [ENTER]
FP(2.47)  [←] [INTG] [5] (5FP) [2] [.] [4] [7] 47 2
0.4700   [ENTER]
ABS(-7)   [→] [ABS] [+/-] [7] [ENTER]          7-
7.0000
SGN(9)    [←] [INTG] [1] (1SGN) [9] [ENTER]    9
1.0000
INTG(-5.3) [←] [INTG] [4] (4INTG) [+/-] [5] [.]
-6.0000   [3] [ENTER]          . 3 5 -

```

/

```

T-  Z-  Y-  X-  -  [→] [R↑] [R↑]
[→] [R↑] [R↑]
[R↓]  T  [→] [R↑]
.Y
:  [R↓]
X Y Z T
value
:  [→] [R↑]
X Y Z T
value
( [←] [→] ) [→] [R↑] [R↑]
REGT  REGZ  REGY  REGX

```

.RPN

ALG

T- Z- Y- X-

.RPN ALG

RPN ALG

(6 " ") . .1

./

x↔y : .2

,EQN : .3

(v ^)

.↩ / () : .4

:

x[RPN] : /

. .1

.i .2

. .3

x+∞[RPN] : /

. .1

.+ .2

. .3

.i .4

r((: /

???? ???? r. .1

???? ??? ???. .2

???? ???? θ .3

:

. .1

.z .2
 . ENTER .3
 2 .4
 . MODE

:
 . z1 .1
 . .2
 . z2 .3
 . ENTER .4
 2 .5
 . MODE

:
 :

sin(2+3i)

: : :
 [DISPLAY] 9 (9x[RPN])
 SIN(2+3[RPN]) [SIN] 2 + 3 i
 9.1545 SIN(2+3i) ENTER
 9.1545[RPN]-4.1689
 i-4.1689

$$z_1 \div (z_2 + z_3)$$

$$z_3 = 4 - 3i \quad z_2 = -2 + i \quad z_1 = 23 + 13i$$

: : :
 (10x+y RPN)
 ← RPN ÷ (-2+ RPN) + 4- () 2 3 + 1 3 i
 3 RPN) > () + / 2 +
 i + 4 - 3 i
 (23 + 13 RPN) ÷ (-2+ ENTER
 2.5000 + 9.0000 i
 ..
 2.5000+9.0000 RPN

(4 - 2/5 i) × (3 - 2/3 i) :

: : :
 ← 5 i) × (3 - 2/3 RPN)) () 4 - . 2 . 5
 i > × () 3 - .
 2 . 3 i
 (4 - 2/5 RPN) × (3... ENTER
 11.7333 i - 3.8667 11.7333 RPN - 3.8667

16 8,2 /

12F₁₆ + E9A₁₆ = ?

: : :
 / BASE 2 (2HEX)
 HEX .16
 12Fh+E9Ah 1 2 RCL F BASE
 FC9h 6 (6h) + RCL E 9
 RCL A BASE 6 (6h)
) ENTER

7760g - 4326g = ?

.8 /
OCT 12Fh+E9Ah [ON] [BASE] [3] (3OCT)
 7711o

7760o-4326o [7] [7] [6] [0] [ON] [BASE] [7] (7o)
 3432o (7o)
 [4] [3] [2] [6] [ON]
 [BASE] [7] (7o) [ENTER]

100g ÷ 5g = ?

100o÷5o [1] [0] [0] [ON] [BASE] [7] (7o)
 14o o)
 [÷] [5] [ON] [BASE] [7] (7o)
 [ENTER]

5A016 + 100110002 = ?

HEX /
 .16 5A0h+ [ON] [BASE] [2] (2HEX)
 [5] [RCL] [A] [0] [ON] [BASE]
 [6] (6h) [+]

←A0h+10011000b [1] [0] [0] [1] [1] [0] [0]
 [0] [ON] [BASE] [8] (8b)
 [ENTER]

5A0h+10011000b [ENTER]
 638h

5A0h+b10011000b [ON] [BASE] [1] (1DEC)
 1.592.0000

(x [ENTER] y x [x↔y] y) (x, y) ,ALG ,

.X x Y y

/ [ON] [CLEAR] [4] (4Σ) .1

. [x↔y] y .2

[Σ+] x .3

/ ,n .4

n .y x .5

← Σ-

) 1

.2 n (.2 n=0

y,x

y,x	y,x
20, 5	20, 4
40, 6	400, 6

: / CLEAR 4 (4Σ)

20 Σ+ 4 x↔y 2 0 Σ+

1.0000

,n

400 Σ+ 6 x↔y 4 0 0 Σ+

2.0000

x

LASTx LASTx

400.0000

400 Σ- ← Σ-

1.0000

40 Σ+ 6 x↔y 4 0 Σ+

2.0000

20 Σ- 4 x↔y 2 0 ←

1.0000

20 Σ+ 5 x↔y 2 0 Σ+

2.0000

/

(/) L.R. /
y,x /

ENTER

(x) y , (y) x

. (← L.R. →) () (← L.R.) ()

← L.R.

. (b) (m) (r)

D

.7

SOLVE

SOLVE

SOLVE

SOLVE

/ $f(x)$) .x

$f(x)$

SOLVE (x

/

$f(x)$

,x

$f(x)$

SOLVE

$f(x)$

x

/

SOLVE

SOLVE

()

$f(x)$

.(,a)

x

.(,b) x /

$f(x)$

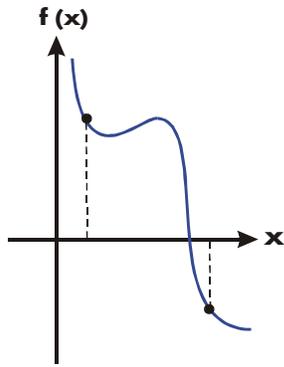
.(,c)

$f(x)$

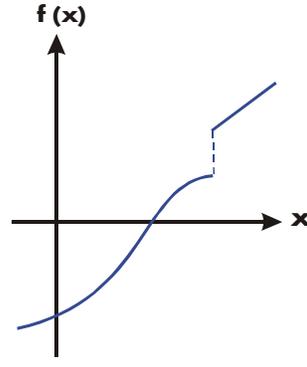
$f(x)$

$f(x)$

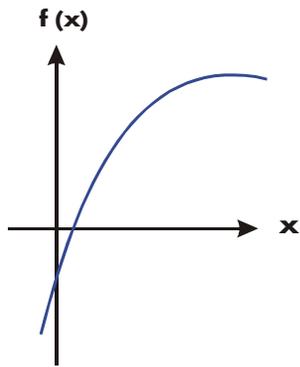
.(,d)



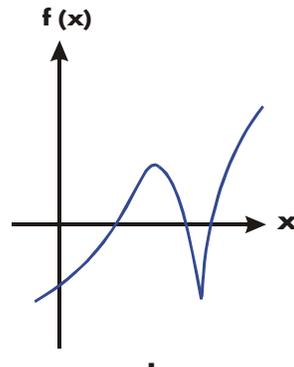
a



b



c



d

Function Whose Roots Can Be Found

" "

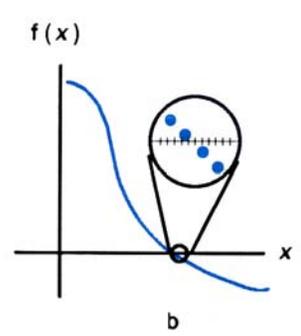
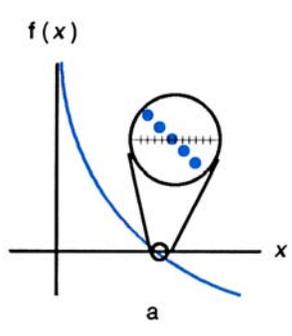
$f(x) = 0$

(12)

SOLVE

12 .(a) . f(x) ■
 , f(x) ■

(b) x
 ()
 .(0, -10-499) (0, 10-499) .
 f(x) ,



(x) \mathbb{R}^+ , \mathbb{R}^+ ✓
 f(x) .Z f(x) \mathbb{R}^+ .Y
 , f(x) ,

$$-2x^3 + 4x^2 - 6x + 8 = 0$$

-2xX^3+4xX^2-6 →
 CK=B9AD
 LN=18

EQN
 +/− 2 X
 RCL X y^x 3
 + 4 X
 RCL X y^x 2
 − 6 X RCL X
 + 8 ENTER
 SHOW
 C

10_
 -2xX^3+4xX^2-6 →

0 STO X
 ENTER 1 0
 EQN

X

SOLVING
 X=
 1.6506
 1.6506

SOLVE X
 R/ ✓
 ✓

f(x) -4.0000E-11

R/

$$x^2 + x - 6 = 0.$$

```

:
:
:
EQN
RCL X y^x 2 +
X^2+X-6
RCL X - 6
ENTER
CK=3971
LN=7
SHOW
C

```

```

:
:
:
10_
0 STO X
ENTER 1 0
X^2+X-6
EQN
SOLVING
X=
2.0000
2.0000
R

```

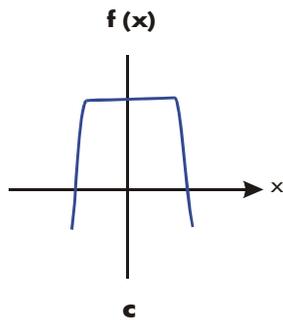
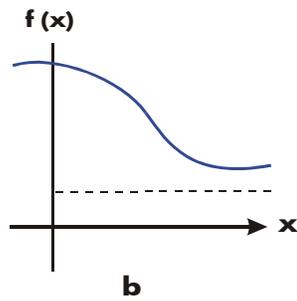
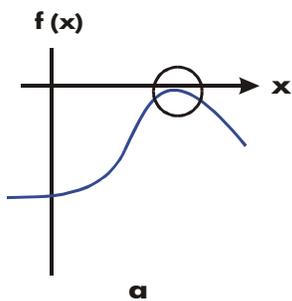
```

.10 0
f(x) = 0. 0.0000000000
-10_
0 STO X
ENTER 1 0 +/-
X^2+X-6
EQN
SOLVING
X=
-3.0000
-10 0
f(x) = 0. 0.0000000000
R R SHOW

```

SOLVE ,x

f(x) .(,a)



Case Where No Root Is Found

$$x^2 - 6x + 13 = 0.$$

$$. x = 3$$

X^2-6X+13
 CK=EC74
 LN=10

RCL X y^x 2
 - 6 X RCL X
 + 1 3 ENTER
 SHOW

EQN

C

```

:
:
:
10_
X^2-6X+13
NO ROOT FND

```

Calculator keypad sequence:
 0 [STO] [X]
 [ENTER] 1 0
 [EQN]
 [SOLVE] [X]

.10 0

$$10 - \frac{1}{X} = 0$$

```

:
:
:
10-INV(X)
CK=6EAB
LN=9
5_
10-INV(X)

```

Calculator keypad sequence:
 [EQN]
 1 0 [1/x]
 [RCL] [X] [ENTER]
 [SHOW]
 [C]
 . 0 0 5 [STO] [X]
 [ENTER] 5
 [EQN]

```

x
.5 0.005
f(x) = 0

```

Calculator keypad sequence:
 [SOLVE] [X]
 [R]
 [R] [SHOW]

```

X=
0.1000
0.1000
0.0000000000

```

```

:
:
:
-1.0000 [+/-] 1 [R] STO X
ENTER
10-INV(X) [+/-] 2 [EQN]

.X X= [R] SOLVE X
0.1000

```

$$\sqrt{[x \div (x + 0.3)]} - 0.5 = 0$$

```

:
:
:
[EQN]
[√] RCL X ÷ ( )
RCL X + . 3
> > - . 5
ENTER
[←] SHOW
C

```

```

:
:
:
10_
SQRT(X÷(X+0.3))→ [0] [R] STO X
ENTER 1 0
[EQN]

```

```

:
:
:
.X= [R] SOLVE X
0.1000

```

x

.-10 0

/

-0,3 0

:

:

:

-10_

SQRT(X+(X+0.3))

0 [R] STO [X]
ENTER +/- 1 0
EQN

.f(x)

NO ROOT FND

[R] SOLVE [X]

"

/

"

:

:

x < -1

f(x) = x + 2

/

-1 ≤ x ≤ 1

f(x) = 1

if x > 1

f(x) = -x + 2

:

,RPN

J001 LBL J
J002 1
J003 2
J004 RCL+ X
J005 x<y?
J006 RTN
J007 4
J008 -
J009 +/-
J010 x>y?
J011 R↓
J012 RTN

9412 39

-10⁻⁸ 10⁻⁸ x
 : : :
 (RPN)
 1 E 8
 -1E-8 +/_ STO X 1
 +/_ E 8 +/_
 "J" -1.0000E-8 FN= J
 .X X=
 -2.0000 SOLVE X

(12)
SOLVE

$$[(|x|+1)+10^{15}]^2 \cdot 10^{30} = 0$$

SOLVE ,2 1 f(x) 1.0000

SOLVE

$$|x^2 - 7| = 0$$

$\sqrt{7}$ 12 $\sqrt{7}$

SOLVE / NO ROOT FND

E

.8

$f(x)$

$\int f(x) dx$

$(\quad) x$

:

$f(x)$

$-f(x)$

$f(x)$

(\quad)

$f(x)$

$f(x)$

.Y

X

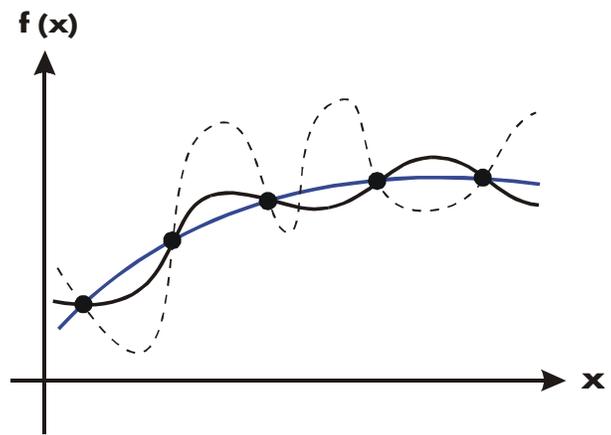
.($f(x)$)

" " Y

HP 35s

 $f(x)$ $f(x)$ $f(x)$

(/)



$f(x)$

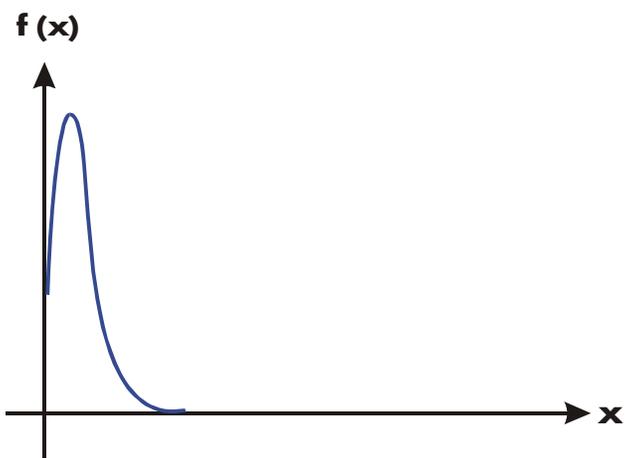
$f(x)$

/

:

$$\int_0^{\infty} x e^{-x} dx.$$

10499



$f(x)$

ALL SCI 11 /

) /

."

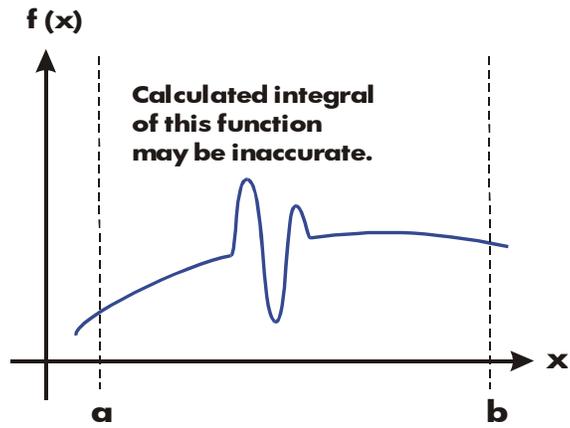
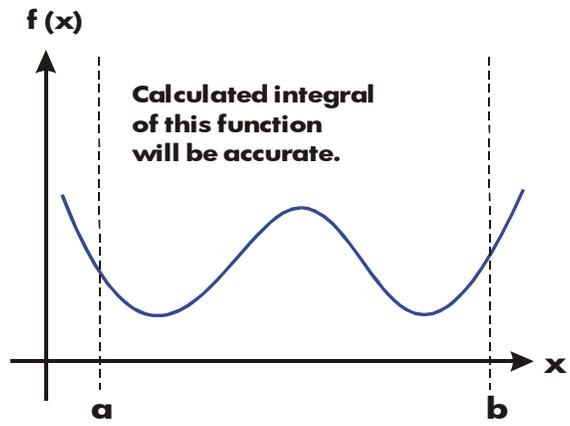
()

/

(/)
 $f(x)$

()

:



$\int_{-\infty}^{\infty} x f(x) dx$

$f(x) = xe^{-x}$

$\int_{-\infty}^{\infty} x \cdot xe^{-x} dx$

.103 10499

:

:

:

1E3_ 0 ENTER 1 E 3

/ X*EXP(-X) EQN

INTEGRATING

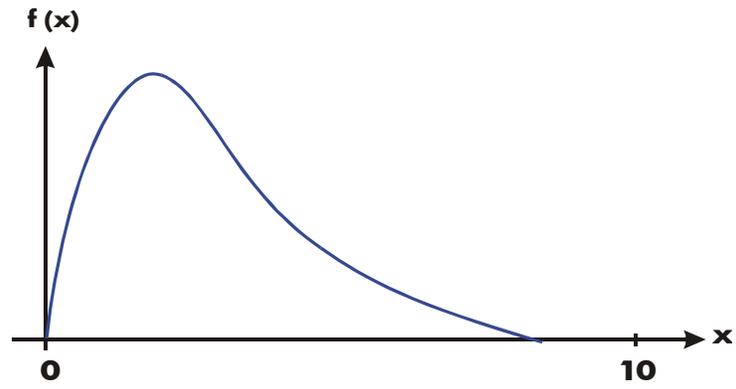
= ∫

1.000E0

1.000E-3 x↔y

$$x = 10^3 \quad x = 0$$

$$:x = 10 \quad x = 0$$



W

x

x

"

"

()

/

F

()

()



/ [←] [C]

(FN=label) /

FN ACTIVE]

([FN] d variable)

FN)] <]

<SOLVE>]

[←] [MEM] [1] (1VAR) /

ALL VARS=0

SOLVING

()

BAD GUESS

CALCULATING

CLR ALL? Y N

) /

CLR EQN? Y N

.(

) /

CLR PGMS? Y N

.(

[←] [%CHG])

DIVIDE BY 0

.(Y

/ DUPLICAT .LBL
 " " EQN LIST TOP
 " " EQN LIST TOP
 INTEGRATING
 ∫ FN SOLVE CALCULATE / INTERRUPTED
 .PGM EQN RPN ALG , [R/S] [C]
 : INVALID DATA
 ■
 r > n ■
 ■
 .n ≥ 1016 , n r ■
 ■
 n / ■
 .n / ■
 / ■
 [x↔y] ■
 ■
 ■
 90 x [TAN] ■
 .x > 1 x < -1 [ASIN] [ACOS] ■
 .x ≥ 1 x ≤ -1 [HYP] [ATAN] ■
 x < 1 [HYP] [ACOS] ■
 ■
 INVALID VAR
 x gamma factorial INVALID x!

: / INVALID ψ^*
 0th () 0 ■
 / ■
 (0 + i 0) ■
 .((I)) INVALID (I)
 .((J)) INVALID (J)
 .(0 + i 0) LOG(0)
 LOG(NEG)
 .(B-3) / MEMORY CLEAR
 .(B) MEMORY FULL
) NO
 .(
 () / NONEXISTENT
 NONEXISTENT .FN XEQ , GTO
 / () ■
 / ■
 / (MEM 2 (2PGM)) / NO LABELS
 / NO SOLUTION
 / MULT SOLUTION
 (PGM EQN /) SOLVE NO ROOT FND
 : .(D-8)
 / , /
 SOLVE
 .(SOLVE)

```

                                ,(          )          OVERFLOW
                                ±9.999999999999E499
                                .(17-1          "          /          "          )
                                ,5          .6          /
                                .
                                "          "          PRGM TOP
                                "          "          PRGM TOP
                                .(FN SOLVE          )          RUNNING B
                                ∫ FN d variable SOLVE variable (          )          SELECT FN
                                ,MEMORY CLEAR          ∫FN SOLVE
                                (FN=label)          /          SOLVE ACTIVE
                                .          SOLVE
                                SOLVE          SOLVE<SOLVE>
                                SOLVE          FN> ∫ SOLVE<
                                .
                                SOLVING
                                .
                                SQRT<NEG>

```

STAT ERROR

.n = 0
n = b r m \hat{y} \hat{x} s_y s_x



y) x $\bar{x}w$ \hat{x} r

.1

.(

x b m r \hat{y} \hat{x}

SOLVE

SYNTAX ERROR

/ [C] [←]



.BIN OCT ,HEX /

TOO BIG

.-34,359,738,368 ≤ n ≤ 34,359,738,367

) 21st XEQ /

XEQ OVERFLOW

, FN SOLVE .(20

) YES

.(

:

35S-OK

35S-FAIL n

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G

DISPLAY **1** (1FIX) *n* FIX *n*



(→DEG)

*

*				
1	15-1	Changes the sign of a number.	.	+/-
1	19-1	Addition. Returns $y + x$.	$y + x$	+
1	19-1	Subtraction. Returns $y - x$.	$y - x$	-
1	19-1	Multiplication. Returns $y \times x$.	$y \times x$	×
1	19-1	Division. Returns $y \div x$.	$y \div x$	÷
1	16-6	Power. Indicates an exponent.	. / .	^
	4-1 8-1 3-6 7-13	Deletes the last digit keyed in; clears x ; clears a menu; erases last function keyed in an equation; deletes an equation; deletes a program step.	/ x /	
	28-1 3-6 11-13 20-13	Displays previous entry in catalog; moves to previous equation in equation list; moves program pointer to previous step.	. /	
	28-1 3-6 11-13 20-13	Displays next entry in catalog; moves to next equation in equation list; moves program pointer to next line (during program entry); executes the current program line (not during program entry).	() .(

*				
	14-1	Moves the cursor and does not delete any content.	.	 or 
	11-1 4-6 8-11	Scrolls the display to show more digits to the left and right; displays the rest of an equation or binary number; goes the next menu page in the CONST and SUMS menus.	.	  or  
	3-6	Goes to the top line of the equation or the first line of the last label in program mode.	.SUMS CONST /	 
	3-6	Goes to the last line of the equation or the first line of the next label in program mode.	/	 
1	5-6	  Separates the two or three arguments of a function.	.	 
1	18-1	 Reciprocal.	.	 1/x
1	2-4	 Common exponential. Returns 10 raised to the x power.	10 .	 10 ^x
1	6-4	 Percent. Returns $(y \times x) \div 100$.	.	 % $(y \times x) \div 100$
1	6-4	 Percent change. Returns $(x - y)(100 \div y)$.	.	 %CHG $(x - y)(100 \div y)$
1	3-4	 Returns the approximation 3.14159265359 (12 digits).	.	 π $(12) 3.14159265359$
Σ +	2-12	 Accumulates (y, x) into statistics registers.	(y, x) /	 $\Sigma+$
Σ -	2-12	  Removes (y, x) from statistics registers.	(y, x)	  $\Sigma-$
1	11-12	  (Σx) Returns the sum of x-values.	.X	Σx
1	11-12	    (Σx^2) Returns the sum of squares of x-values.	.X (Σx^2)	Σx^2
1	11-12	      (Σxy) Returns the sum of products of x- and y-values.	(Σxy)	Σxy

*				
1	11-12	SUMS $(\sum y)$ Returns the sum of y-values.	.y x SUMS $(\sum y)$.y	Σy
1	11-12	SUMS $(\sum y^2)$ Returns the sum of squares of y-values.	SUMS $(\sum y^2)$.y	Σy^2
1	7-12	S.σ (σx) Returns population standard deviation of x-values: $\sqrt{\sum (x_i - \bar{x})^2 \div n}$	S.σ (σx) :x $\sqrt{\sum (x_i - \bar{x})^2 \div n}$	σx
1	7-12	S.σ (σy) Returns population standard deviation of y-values: $\sqrt{\sum (y_i - \bar{y})^2 \div n}$	S.σ (σy) :y $\sqrt{\sum (y_i - \bar{y})^2 \div n}$	σy
	2-8 7-15	FN (\int) Integrates the displayed equation or the program selected by FN=, using lower limit of the variable of integration in the Y-register and upper limit of the variable of integration in the X-register.	<i>variable</i> $(\int \text{FN} \text{ d })$. FN= Y .X	FN d <i>variable</i> (\int)
1	6-6	() parenthesis. press to leave the parenthesis for further calculation.	. () parenthesis (/) 	()
1	1-10	[] : A vector symbol for performing vector operations	[] :	[]
1	1-9	θ : A complex number symbol for performing complex number operations	θ :	θ
1	4-6	RCL <i>variable</i> Value of named variable.	RCL <i>variable</i> ()	A through Z
1	17-4	ABS <i>Absolute value.</i> .|x| Returns	.|x| ABS	ABS
1	4-4	ACOS <i>Arc cosine.</i> Returns $\cos^{-1}x$.	ACOS .cos ⁻¹ x	ACOS
1	6-4	HYP ACOS <i>Hyperbolic arc cosine.</i> Returns $\cosh^{-1}x$.	HYP ACOS .cosh ⁻¹ x	ACOSH
	9-1	Activates Algebraic mode.	.	MODE 4 (4F)

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1	16-6	10^x <i>Common exponential.</i> Returns 10 raised to the specified power (antilogarithm).	/ 10^x 10	LG) ALOG
	23-1	DISPLAY 4 (4ALL) Displays all significant digits. May have to scroll right () to see all of the digits.	DISPLAY 4 (4ALL) ()	ALL
1	4-11	LOGIC 1 (1AND) Logic operator	LOGIC 1 (1AND) .	AND
1	14-4	ARG Replaces a complex number with its Argument "θ"	ARG ."θ"	ARG
1	4-4	ASIN <i>Arc sine</i> Returns $\sin^{-1} x$.	ASIN <i>Arc sine</i> .sin ⁻¹ x	ASIN
1	6-4	HYP ASIN <i>Hyperbolic arc sine.</i> Returns $\sinh^{-1} x$.	HYP ASIN .sinh ⁻¹ x	ASINH
1	4-4	ATAN <i>Arc tangent.</i> Returns $\tan^{-1} x$.	/ ATAN .tan ⁻¹ x	ATAN
1	6-4	HYP ATAN <i>Hyperbolic arc tangent.</i> Returns $\tanh^{-1} x$.	HYP ATAN / .tanh ⁻¹ x	ATANH
1	11-12	L.R. (b) Returns the <i>y</i> -intercept of the $\bar{X} - m\bar{Y}$ regression line:	L.R. (b) y / $\bar{x} - m\bar{y}$:	b
1	2-11	BASE 8 (8b) Indicates a binary number	BASE 8 (8b) .	b
	1-11	Displays the base-conversion menu.	. /	BASE
	1-11	BASE 4 (4BIN) Selects Binary (base 2) mode.	BASE 4 (4BIN) .(2) /	BIN
	1-1	Turns on calculator; clears <i>x</i> ; clears messages and prompts; cancels menus; cancels catalogs; cancels equation entry; cancels program entry; halts execution of an equation; halts a running program.	/	C
	4-1		/	<i>x</i>
	8-1		/	
	29-1		/	
	3-6			
	7-13			
	19-13			

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1	4-5	<i>Denominator.</i> Sets denominator limit for displayed fractions to x. If x = 1, displays current /c value.	/ <i>Denominator.</i> . . .x /c x = 1	/c
	14-4	Converts ° F to ° C.	.° C ° F	→°C
	12-14	2 (2CF) n Clears flag n (n = 0 through 11).	2 (2CF) n 0 n)n / . (11	CF n
	5-1 28-1	Displays menu to clear numbers or parts of memory; clears indicated variable or program from a MEM catalog; clears displayed equation;	/ . / / . MEM	CLEAR
	29-1	Clears all stored data, equations, and programs.	/	CLEAR 3 (3ALL)
	23-13	Clears all programs (calculator in Program mode).	) / . ( /	CLEAR 3 (3PGM)
	7-13	Clears the displayed equation (calculator in Equation mode).	/)	CLEAR 3 (3EQN)
	1-12	CLEAR 4 (4Σ) Clears statistics registers.	/ CLEAR 4 (4Σ)	CLΣ
	6-3	CLEAR 2 (2VARS) Clears all variables to zero.	CLEAR 2 (2VARS) /	CLVARS
	3-2 7-2	CLEAR 1 (1X) Clears x (the X-register) to zero.	x / CLEAR 1 (1X) (X)	CLx
	7-13 4-1	CLEAR 6 (6CLVARx) Clears indirect variables whose address is greater than the x address to zero.	CLEAR 6 (6CLVARx) / x	CLVARx
	7-2	CLEAR 5 (5STK) Clears all stack levels to zero.	CLEAR 5 (5STK) /	CLSTK
1	14-4	Converts inches to centimeters.		→CM

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1	15-4	 nCr <i>Combinations of n items taken r at a time. Returns $n! \div (r! (n - r)!)$.</i>	n  nCr r $n! \div (r! (n - r)!)$	nCr
1	3-4	 COS <i>Cosine. Returns cos x.</i>	 COS <i>Cosine</i> cos x	COS
1	6-4	 HYP  COS <i>Hyperbolic cosine. Returns cosh x.</i>	 HYP  COS <i>Hyperbolic cosine</i> cosh x	COSH
	8-4	Accesses the 41 physics constants.	.41	 CONST
1	1-11	 BASE  5 (5d) indicates a decimal number	 BASE  5 (5d) .	d
	1-11	 BASE  1 (1DEC) Selects Decimal mode.	 BASE  1 (1DEC) /	DEC
	4-4	 MODE  1 (1DEG) Selects Degrees angular mode.	 BASE  1 (1DEC) /	DEG
1	13-4	  →DEG <i>Radians to degrees. Returns $(360/2\pi) x$.</i>	<i>Radians</i> . $(360/2\pi) x$  →DEG <i>degrees</i>	→DEG
	21-1	Displays menu to set the display format, radix (· or ·), thousand separator, and display format of complex number.	 DISPLAY (· ·)	 DISPLAY
	18-14	 DSE <i>variable Decrement, Skip if Equal or less. For control number cccccc.fffii stored in a variable, subtracts ii (increment value) from cccccc (counter value) and, if the result ≤fff (final value), skips the next program line.</i>	 DSE <i>variable(متغير)</i> . cccccc.fffii () ii () cccccc () ≤fff	DSE variable
1	15-1	Begins entry of exponents and adds "E" to the number being entered. Indicates that a power of 10 follows.	/ . 10 / "E"	 E

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1	22-1	 DISPLAY 3 (3ENG) <i>n</i> Selects Engineering display with <i>n</i> digits following the first digit (<i>n</i> = 0 through 11).	 DISPLAY 3 (3ENG) <i>n</i> 0 n) n .(11	ENG n
1	22-1	Causes the exponent display for the number being displayed to change in multiple of 3.	.3 /	 ENG and  ENG
1	19-1 4-6 11-6	Separates two numbers keyed in sequentially; completes equation entry; evaluates the displayed equation (and stores result if appropriate).	) ) .(	ENTER
1	6-2	 ENTER Copies <i>x</i> into the Y-register, lifts <i>y</i> into the Z-register, lifts <i>z</i> into the T-register, and loses <i>t</i> .	<i>y</i> <i>Y</i> <i>x</i>  ENTER <i>T</i> <i>Z</i> <i>z</i> <i>Z</i> <i>t</i>	ENTER
1	3-6 7-13	Activates or cancels (toggles) Equation-entry mode.	() /	EQN
1	1-4	 e^x <i>Natural exponential.</i> Returns <i>e</i> raised to the <i>x</i> power.	. / /  e^x <i>e</i> <i>x</i> ()	E ^x
1	16-6	 e^x <i>Natural exponential.</i> Returns <i>e</i> raised to the specified power.	. / /  e^x <i>e</i> ()	EXP
1	14-4	  °F Converts °C to °F.	. °F °C   °F	→ °F
1	1-5	Turns on and off Fraction-display mode.	/	 FDISP
1	21-1	DISPLAY 1 (1FIX) <i>n</i> Selects Fixed display with <i>n</i> decimal places: 0 ≤ <i>n</i> ≤ 11.	DISPLAY 1 (1FIX) <i>n</i> <i>n</i> 0 ≤ <i>n</i> ≤ 11 :	FIX <i>n</i>
1	12-14	Displays the menu to set, clear, and test flags.	/	 FLAGS
1	1-15 7-15	 FN= <i>label</i> Selects <i>labeled</i> program as the current function (used by SOLVE FN).] and	. /  FN= /) (] FN SOLVE	FN = <i>label</i>
1	Error! Reference source not	 INTG 5 (5FP) <i>Fractional part of x.</i>	 INTG 5 (5FP) <i>x</i>	FP

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1	4found. 17-12-14	$\left[\leftarrow \right] \left[\text{FLAGS} \right] \left[3 \right] (\text{3FS?}) n$ If flag n ($n = 0$ through 11) is set, executes the next program line; if flag n is clear, skips the next program line.	$\left[\leftarrow \right] \left[\text{FLAGS} \right] \left[3 \right] (\text{3FS?}) n$ $(11 \quad 0 \quad n) n$ n	$\text{FS? } n$
1	14-4	$\left[\leftarrow \right] \left[\rightarrow \text{gal} \right]$ Converts liters to gallons.	$\left[\leftarrow \right] \left[\rightarrow \text{gal} \right]$	$\rightarrow \text{GAL}$
1	4-4	$\left[\text{MODE} \right] \left[3 \right] (\text{3GRD})$ Sets Grads angular mode.	$\left[\text{MODE} \right] \left[3 \right] (\text{3GRD})$.Grads	GRAD
1	21-13	Sets program pointer to line nnn of program $label$.	nnn $/$	$\left[\text{GTO} \right] \left[\cdot \right] \text{label}$ nnn
1	21-13	Sets program pointer to PRGM TOP.	PRGM .TOP	$\left[\text{GTO} \right] \left[\cdot \right] \left[\cdot \right]$
1	1-11	$\left[\rightarrow \right] \left[\text{BASE} \right] \left[6 \right] (\text{6h})$ Indicates a hexadecimal number	$\left[\rightarrow \right] \left[\text{BASE} \right] \left[6 \right] (\text{6h})$	h
1	1-11	$\left[\rightarrow \right] \left[\text{BASE} \right] \left[2 \right] (\text{2HEX})$ Selects Hexadecimal (base 16) mode.	$\left[\rightarrow \right] \left[\text{BASE} \right] \left[2 \right] (\text{2HEX})$ $) /$ $\text{.}(16$	HEX
1	6-4	Displays the HYP_ prefix for hyperbolic functions.	$\text{HYP}_$	$\left[\leftarrow \right] \left[\text{HYP} \right]$
1	13-4	$\left[\rightarrow \right] \left[\rightarrow \text{HMS} \right]$ <i>Hours to hours, minutes, seconds.</i> Converts x from a decimal fraction to hours–minutes–seconds format.	$\left[\rightarrow \right] \left[\rightarrow \text{HMS} \right]$ x . $-$	$\rightarrow \text{HMS}$
1	13-4	$\left[\leftarrow \right] \left[\text{HMS} \rightarrow \right]$ <i>Hours, minutes, seconds to hours.</i> Converts x from hours–minutes–seconds format to a decimal fraction.	$\left[\leftarrow \right] \left[\text{HMS} \rightarrow \right]$ x . $-$	$\text{HMS} \rightarrow$
1	2-9	Used for entering complex numbers	.	$\left[\text{i} \right]$
1	4-6 21-14	$\left[\text{RCL} \right] \left[(I) \right] / \left[(J) \right], \left[\text{STO} \right] \left[(I) \right] / \left[(J) \right]$. Value of variable whose letter corresponds to the numeric value stored in variable I/J.	$\left[\text{RCL} \right] \left[(I) \right] / \left[(J) \right], \left[\text{STO} \right] \left[(I) \right] / \left[(J) \right]$ $/$.J/I	$\left[(I) \right] / \left[(J) \right]$
1	14-4	$\left[\leftarrow \right] \left[\rightarrow \text{in} \right]$ Converts centimeters to inches.	$\left[\leftarrow \right] \left[\rightarrow \text{in} \right]$	$\rightarrow \text{IN}$

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1	16-6	$\left[\leftarrow \right] \text{INTG} \left[2 \right] (2\text{INT}\div)$ Produces the quotient of a division operation involving two integers.	$\left[\leftarrow \right] \text{INTG} \left[2 \right] (2\text{INT}\div)$	DIV
1	2-4	$\left[\leftarrow \right] \text{INTG} \left[2 \right] (2\text{INT}\div)$ Produces the quotient of a division operation involving two integers.	$\left[\leftarrow \right] \text{INTG} \left[2 \right] (2\text{INT}\div)$	INT÷
1	18-4	$\left[\leftarrow \right] \text{INTG} \left[4 \right] (4\text{INTG})$ Obtains the greatest integer equal to or less than given number.	$\left[\leftarrow \right] \text{INTG} \left[4 \right] (4\text{INTG})$	INTG
	13-13	$\left[\leftarrow \right] \text{INPUT} \text{ variable}$ Recalls the <i>variable</i> to the X-register, displays the variable's name and value, and halts program execution. Pressing $\left[\text{R/S} \right]$ (to resume program execution) or $\left[\downarrow \right]$ (to execute the current program line) stores your input in the variable. (Used only in programs.)	$\left[\leftarrow \right] \text{INPUT} \text{ variable} (\quad)$ X $\left[\text{R/S} \right]$ (\quad) (\quad) $\left[\downarrow \right]$ (\quad)	INPUT variable

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1	16-6	$\left[1/x \right]$ Reciprocal of argument.	$\left[1/x \right]$	INV
1	17-4	$\left[\leftarrow \right] \text{INTG} \left[6 \right] (6\text{IP})$ Integer part of x.	$\left[\leftarrow \right] \text{INTG} \left[6 \right] (6\text{IP})$ x.	IP
	18-14	$\left[\leftarrow \right] \text{ISG} \text{ variable}$ Increment, Skip if Greater. For control number cccccc.fffii stored in variable, adds ii	$\left[\leftarrow \right] \text{ISG}$ cccccc.fffii	ISG variable

		(increment value) to cccccc (counter value) and, if the result > fff (final value), skips the next program line.	) cccccc () ii) > fff () ()	
1	14-4	Converts pounds to kilograms.	→KG	
1	14-4	Converts miles to kilometers	→KM	
1	14-4	Converts gallons to liters.	→L	
	8-2	Returns number stored in the LAST X register.	LASTx .X	
1	14-4	Converts kilograms to pounds.	→LB	
	3-13	label Labels a program with a single letter for reference by the XEQ, GTO, or FN= operations. (Used only in programs.)	label (/) / XEQ FN= operations() GTO ()	LBL label
1	1-4	Natural logarithm. Returns $\log_e x$.	LN .log _e x	LN
1	1-4	Common logarithm. Returns $\log_{10} x$.	LOG .log ₁₀ x	LOG
	4-12	Displays menu for linear regression.	/	
1	7-12	(m) Returns the slope of the regression $(\sum(x_i - \bar{x})^2 \bar{y}) \div \sum(x_i - \bar{x})(y_i - \bar{y})$ line: $[\sum(x_i - \bar{x})^2 \bar{x}] \div \sum(x_i - \bar{x})(y_i - \bar{y})$	(m) : :	m
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1	14-4	Converts kilometers to miles.	→MILE	
	28-1	Displays the amount of available memory and the catalog menu.	/	
	22-13	Begins catalog of programs.	/	 (2FGM)
	4-3	Begins catalog of variables.	/	 (1VAR)
	7-1	Displays menu to set ALG or RPN mode or angular modes.		

	4-4		RPN ALG /	
1	11-12	SUMS (n) Returns the number of sets of data points.	SUMS (n)	n
1	4-11	LOGIC 5 (5NAND) Logic operator	LOGIC 5 (5NAND)	NAND
1	4-11	LOGIC 6 (6XOR) Logic operator	LOGIC 6 (6XOR)	NOR
1	4-11	LOGIC 4 (4NOT) Logic operator	LOGIC 4 (4NOT)	NOT
1	2-11	BASE 7 (7O) Indicates an octal number	BASE 7 (7O)	o
	1-11	BASE 3 (3OCT) Selects Octal (base 8) mode.	BASE 3 (3OCT)	OCT
1	4-11	LOGIC 3 (3OR) Logic operator	LOGIC 3 (3OR)	OR
	1-1	Turns the calculator off.		OFF
1	15-4	nPr <i>Permutations of n items taken r at a time. Returns $n! \div (n-r)!$.</i>	n . $n! \div (n-r)!$	nPr nPr
	6-13	Activates or cancels (toggles) Program-entry mode.	()	PRGM
	18-13 19-13	PSE <i>Pause.</i> Halts program execution briefly to display x, variable, or equation, then resumes. (Used only in programs.)	x .()	PSE

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1	7-12	L.R. (r) Returns the correlation coefficient between the x- and y-values: $\frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \times \sum (y_i - \bar{y})^2}}$	L.R. (r) : y x $\frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \times \sum (y_i - \bar{y})^2}}$	r
	25-1	8 0000 (i) Changes the display of complex numbers.	DISPLAY 1 0 (10r) <i>بيدل 00</i> 8 0000 0000 0000 0000 <i>المركبة.</i>	r θ a
	4-4	MODE 1 (1RAD) Selects Radians angular mode.	MODE 1 (1RAD)	RAD

1	13-4	  Degrees to radians. Returns $(2\pi/360) x$.	. radians   →RAD . $(2\pi/360) x$	
	23-1	   (6.) Selects the comma as the radix mark (decimal point).	   (6.) RADIX ,	
	23-1	   (5.) Selects the period as the radix mark (decimal point).	   (5.) RADIX .	
1	15-4	  Executes the RANDOM function. Returns a random number in the range 0 through 1.	.RANDOM   RANDOM	
	7-3	 <i>variable</i> Recall. Copies <i>variable</i> into the X-register.	.  <i>variable</i>	RCL <i>variable</i>
	7-3	  <i>variable</i> Returns $x + \text{variable}$.	  <i>variable</i> ()	RCL+ <i>variable</i>
	7-3	  <i>variable</i> . Returns $x - \text{variable}$.	  ()	RCL- <i>variable</i>
	7-3	  <i>variable</i> . Returns $x \times \text{variable}$.	  ()	RCLx <i>variable</i>
	7-3	  <i>variable</i> . Returns $x \div \text{variable}$.	  ()	RCL÷ <i>variable</i>

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1	16-6	   (3Rmdr) Produces the remainder of a division operation involving two integers.	   (3Rmdr)	RMDR
1	18-4 8-5	  Round. Rounds x to n decimal places in FIX n display mode; to $n + 1$ significant digits in SCI n or ENG n display mode; or to decimal number closest to displayed fraction in Fraction-display mode.	n x   Round / $n + 1$ FIX n SCI n / ENG	RND

	9-1	MODE 5 (5RPN) Activates Reverse Polish notation.	MODE 5 (5RPN) RPN	
	4-13 2-14	RTN Return . Marks the end of a program; the program pointer returns to the top or to the calling routine.	RTN Return	RTN
	3-2	R↓ Roll down . Moves <i>t</i> to the Z-register, <i>z</i> to the Y-register, <i>y</i> to the X-register, and <i>x</i> to the T-register in RPN mode. Displays the X,Y,Z,T menu to review the stack in ALG mode.	R↓ Roll down z Z t x X y Y .RPN / T T Z Y X .ALG /	R↓
	3-2	R↑ Roll up . Moves <i>t</i> to the X-register, <i>z</i> to the T-register, <i>y</i> to the Z-register, and <i>x</i> to the Y-register in RPN mode. Displays the X,Y,Z,T menu to review the stack in ALG mode.	R↑ Roll up z X t x Z y T .RPN / Y T Z Y X / .ALG	R↑
	4-12	Displays the standard-deviation Menu.		S.σ
	22-1	DISPLAY 2 (2SCI) <i>n</i> Selects Scientific display with <i>n</i> decimal places. (<i>n</i> = 0 through 11.)	DISPLAY 2 (2SCI) <i>n</i> o n) .n . (11	SCI <i>n</i>

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	15-4	SEED Restarts the random-number sequence with the seed $ x $.	SEED	SEED
	12-14	FLAGS 1 (1SF) <i>n</i> Sets flag <i>n</i> (<i>n</i> = 0 through 11).	FLAGS 1 (1SF) <i>n</i> .(11 0 n) n /	SF <i>n</i>
1	17-4	INTG 1 (1SGN) Indicates the sign of <i>x</i> .	INTG 1 (1SGN) x	SGN

	19-6 23-13	Shows the full mantissa (all 12 digits) of x (or the number in the current program line); displays hex checksum and decimal byte length for equations and programs.	x (12) () .(. .	SHOW
1	3-4	Sine. Returns sin x.	. Sine. . sin x	SIN
1	6-4	Hyperbolic sine. Returns sinh x.	Hyperbolic sine .sinh x	SINH
	1-7 1-15	variable Solves the displayed equation or the program selected by FN=, using initial estimates in variable and x.	variable () FN= . x	SOLVE variable
1	14-14	Inserts a blank space character during equation entry.	/	SPACE
1	16-6	Square of argument.	.	SQ
1	16-6	Square root of x.	.x	SQRT
	2-3	variable Store. Copies x into variable.	. variable () . x	STO variable
	6-3	variable Stores variable + x into variable.	. variable () x + ()	STO + variable
	6-3	variable Stores variable - x into variable.	. variable () . x -	STO - variable
	6-3	variable Stores variable x x into variable.	. variable () . x x	STO x variable
*	6-3	variable Stores variable ÷ x into variable.	. variable () . x ÷	STO ÷ variable
	19-13	Run/stop. Begins program execution at the current program line; stops a running program and displays the X-register.	. /	STOP
	4-12	Displays the summation menu.	. X	SUMS

1	6-12	S.D. (Σx) Returns sample standard deviation of x-values: $\sqrt{\sum (x_i - \bar{x})^2 \div (n - 1)}$	S.D. (Σx) .x $\sqrt{\sum (x_i - \bar{x})^2 \div (n - 1)}$	sx
1	6-12	S.D. (Σy) Returns sample standard deviation of y-values: $\sqrt{\sum (y_i - \bar{y})^2 \div (n - 1)}$	S.D. (Σy) .y $\sqrt{\sum (y_i - \bar{y})^2 \div (n - 1)}$	sy
1	3-4	TAN <i>Tangent.</i> Returns tan x.	.tan x / TAN	TAN
1	6-4	HYP TAN <i>Hyperbolic tangent.</i> Returns tanh x.	/ HYP TAN	TANH
	4-3 15-13	VIEW <i>variable</i> Displays the labeled contents of <i>variable</i> without recalling the value to the stack.	VIEW <i>variable</i> () /	VIEW <i>variable</i>
	12-6	Evaluates the displayed equation.		XEQ
	1-14	XEQ <i>label</i> Executes the program identified by <i>label</i> .	XEQ <i>label</i> (/) /	XEQ <i>label</i>
1	2-4	x² <i>Square of x.</i>	.x x²	x ²
1	2-4	√x <i>Square root of x.</i>	.x √x	x√
1	2-4	x^y <i>The xth root of y.</i>	.y x th x^y	x ^y

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1	4-12	x̄ ($\Sigma x, y$) Returns the mean of x values: $\Sigma x_i \div n.$	x̄ ($\Sigma x, y$) :x / . $\Sigma x_i \div n$	\bar{x}
1	11-12	L.R. (\hat{x}) Given a y-value in the X-register, returns the x-estimate based on $= (y - b) \div \hat{x}$ the regression line: m.	L.R. (\hat{x}) X y : x = (y - b) \div m \hat{x}	\hat{x}
1	15-4	! <i>Factorial (or gamma).</i> Returns (x)(x - 1) ... (2)(1), or Γ (x)	 (gamma) !	!

1	16-6	The argument1 root of argument2.	$(x)(x-1) \dots (2)(1)$, or $\Gamma(x+1)$	XROOT
1	4-12	w Returns (weighted mean of x values: $(\sum y_i x_i) \div \sum y_i$.	w ($\sum y_i x_i \div \sum y_i$	w \bar{x}
	4-12	Displays the mean (arithmetic average) menu.)	
	8-3	x exchange. Exchanges x with a variable.	.x	x<> variable
	4-2	x exchange y. Moves x to the Y-register and y to the X-register.	.y x	x<>y
	7-14	Displays the "x?y" comparison tests menu.	.X y Y x	
	7-14	(\neq) If $x \neq y$, executes next program line; if $x = y$, skips next program line.	(\neq) $x \neq y$	$x \neq y$
			$x = y$	

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	7-14	(\leq) If $x \leq y$, executes next program line; if $x > y$, skips next program line.	(\leq) $x \leq y$	$x \leq y?$
	7-14	($<$) If $x < y$, executes next program line; if $x \geq y$, skips next program line.	($<$) $x < y$	$x < y?$
	7-14	($>$) If $x > y$, executes next program line; if $x \leq y$, skips next program line.	($>$) $x > y$	$x > y?$

			$x \leq y$	
7-14	$x?y$ (\geq) If $x \geq y$, executes next program line; if $x < y$, skips next program line.	$x?y$ (\geq) $x \geq y$ $x < y$	$x \geq y?$	
7-14	$x?y$ ($=$) If $x = y$, executes next program line; if $x \neq y$, skips next program line.	$x?y$ ($=$) $x = y$ $x \neq y$	$x = y?$	
7-14	Displays the "x?0" comparison tests menu.		$x?0$ ".x?0"	
7-14	$x?0$ (\neq) If $x \neq 0$, executes next program line; if $x = 0$, skips the next program line.	$x?0$ (\neq) $x \neq 0$ $x = 0$	$x \neq 0?$	
7-14	$x?0$ (\leq) If $x \leq 0$, executes next program line; if $x > 0$, skips next program line.	$x?0$ (\leq) $x \leq 0$ $x > 0$	$x \leq 0?$	

*				
	7-14	$x?0$ ($<$) If $x < 0$, executes next program line; if $x \geq 0$, skips next program line.	$x?0$ ($<$) $x < 0$ $x \geq 0$	$x < 0?$
	7-14	$x?0$ ($>$) If $x > 0$, executes next program line; if $x \leq 0$, skips next program line.	$x?0$ ($>$) $x > 0$ $x \leq 0$	$x > 0?$
	7-14	$x?0$ (\geq) If $x \geq 0$, executes next program line; if $x < 0$, skips next program line.	$x?0$ (\geq) $x \geq 0$	$x \geq 0?$

			$x < 0$	
	7-14	$x \neq 0$ $\>$ $\>$ $\>$ $\>$ $\>$ $\>$ (=) If $x=0$, executes next program line; if $x \neq 0$, skips next program line:	$x \neq 0$ $\>$ $\>$ $\>$ $\>$ $\>$ $\>$ (=) $x=0$ $x \neq 0$	$x=0?$
1	4-11	LOGIC $\mathbf{2}$ ($2 \times \text{OR}$) Logic operator	LOGIC $\mathbf{2}$ ($2 \times \text{OR}$)	XOR
	11-4	DISPLAY $\mathbf{9}$ ($9 \times \text{RPN}$) Changes display of complex numbers.	DISPLAY $\mathbf{9}$ ($9 \times \text{RPN}$)	xiy
	25-1	DISPLAY $\cdot \mathbf{1}$ ($11 \times + \text{RPN}$) Changes display of complex numbers. ALG mode only.	DISPLAY $\cdot \mathbf{1}$ ($11 \times + \text{RPN}$)	$x+yi$
1	4-12	\bar{y} \bar{x}, \bar{y} $\>$ (Returns the mean of y values. $\Sigma y_i \div n$	\bar{y} \bar{x}, \bar{y} $\>$ (y / $\Sigma y_i \div n$	\bar{y}
1	11-12	\hat{y} L.R. $\>$ (Given an x -value in the X -register, returns the y -estimate $= \hat{y}$ based on the regression line: $m x + b$	\hat{y} L.R. $\>$ (X x $:$ y $= m x + b$	\hat{y}
1	2-4	y^x Power. Returns y raised to the x^{th} power.	y^x Power (/) x^{th} / y	y^x

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