

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
PROGRAM:SIMPINT
:FIX 2
:DISP "PRINCIPAL"
:INPUT P
:DISP "INTEREST RATE"
:DISP "IN DECIMAL FORM"
:INPUT R
:DISP "NUMBER OF YEARS"
:INPUT T
:PRT→I
:DISP "THE INTEREST IS"
:DISP I
:FLOAT
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c .

```
PROGRAM:QUADRAT
:DISP "AX2+BX+C=0"
:INPUT "ENTER A",A
:INPUT "ENTER B",B
:INPUT "ENTER C",C
:B2-4AC→D
:IF D≥0
:THEN
:(-B+√D)/(2A)→M
:DISP M
:(-B-√D)/(2A)→N
:DISP N
:ELSE
:DISP "NO REAL SOLUTION"
:END
```

Two-Point Form of a Line

This program will display the slope and y -intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
PROGRAM:TWOPTFM
:DISP "ENTER X1, Y1"
:INPUT X
:INPUT Y
:DISP "ENTER X2, Y2"
:INPUT C
:INPUT D
:(D-Y)/(C-X)→M
:M×(-X)+Y→B
:DISP "SLOPE ="
:DISP M
:DISP "Y-INT ="
:DISP B
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists.

```
PROGRAM:SOLVE
:DISP "AX+BY=C"
:INPUT "ENTER A",A
:INPUT "ENTER B",B
:INPUT "ENTER C",C
:DISP "DX+EY=F"
:INPUT "ENTER D",D
:INPUT "ENTER E",E
:INPUT "ENTER F",F
:IF AE-DB=0
:THEN
:DISP "NO UNIQUE"
:DISP "SOLUTION"
:ELSE
:(CE-BF)/(AE-DB)→X
:(AF-CD)/(AE-DB)→Y
:DISP X
:DISP Y
:END
```

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
Prgm1:SIMPINT
:Fix 2
:Disp "PRINCIPAL"
:Input P
:Disp "INTEREST RATE"
:Disp "IN DECIMAL FORM"
:Input R
:Disp "NUMBER OF YEARS"
:Input T
:PRT→I
:Disp "THE INTEREST IS"
:Disp I
:Float
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c .

```
Prgm3: QUADRAT
:Disp "ENTER A"
:Input A
:Disp "ENTER B"
:Input B
:Disp "ENTER C"
:Input C
: $B^2 - 4AC \rightarrow D$ 
:If  $D < 0$ 
:Goto 1
: $((-B + \sqrt{D}) / (2A)) \rightarrow M$ 
:Disp M
: $((-B - \sqrt{D}) / (2A)) \rightarrow N$ 
:Disp N
:End
:Lbl 1
:Disp "NO REAL"
:Disp "SOLUTION"
:End
```

Two-Point Form of a Line Program

This program will display the slope and y -intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
Prgm2:TWOPTFM
:Disp "ENTER X1, Y1"
:Input X
:Input Y
:Disp "ENTER X2, Y2"
:Input C
:Input D
: $(D - Y) / (C - X) \rightarrow M$ 
: $M * (-X) + Y \rightarrow B$ 
:Disp "SLOPE ="
:Disp M
:Disp "Y-INT ="
:Disp B
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists.

```
Prgm6:SOLVE
:Disp "AX+BY=C"
:Input A
:Input B
:Input C
:Disp "DX+EY=F"
:Input D
:Input E
:Input F
:If  $AE - DB = 0$ 
:Goto 1
: $(CE - BF) / (AE - DB) \rightarrow X$ 
: $(AF - CD) / (AE - DB) \rightarrow Y$ 
:Disp X
:Disp Y
:End
:Lbl 1
:Disp "NO UNIQUE SOLUTION"
:End
```

TI-82 TI-83

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
PROGRAM:SIMPINT
:Fix 2
:Disp "PRINCIPAL"
:Input P
:Disp "INTEREST RATE"
:Disp "IN DECIMAL FORM"
:Input R
:Disp "NUMBER OF YEARS"
:Input T
:PRT→I
:Disp "THE INTEREST IS"
:Disp I
:Float
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c .

```
PROGRAM:QUADRAT
:Disp "AX2+BX+C=0"
:Prompt A
:Prompt B
:Prompt C
: $B^2-4AC$ →D
:If  $D \geq 0$ 
:Then
: $(-B + \sqrt{D})/(2A)$ →M
:Disp M
: $(-B - \sqrt{D})/(2A)$ →N
:Disp N
:Else
:Disp "NO REAL SOLUTION"
:End
```

Two-Point Form of a Line Program

This program will display the slope and y -intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
PROGRAM:TWOPTFM
:Disp "ENTER X1, Y1"
:Input X
:Input Y
:Disp "ENTER X2, Y2"
:Input C
:Input D
: $(D-Y)/(C-X)$ →M
: $M*(-X)+Y$ →B
:Disp "SLOPE ="
:Disp M
:Disp "Y-INT ="
:Disp B
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists.

```
PROGRAM:SOLVE
:Disp "AX+BY=C"
:Prompt A
:Prompt B
:Prompt C
:Disp "DX+EY=F"
:Prompt D
:Prompt E
:Prompt F
:If  $AE-DB=0$ 
:Then
:Disp "NO UNIQUE"
:Disp "SOLUTION"
:Else
: $(CE-BF)/(AE-DB)$ →X
: $(AF-CD)/(AE-DB)$ →Y
:Disp X
:Disp Y
:End
```

TI-85 TI-86

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
PROGRAM:SIMPINT
:Fix 2
:Disp "Principal"
:Input P
:Disp "Interest rate"
:Disp "in decimal form"
:Input R
:Disp "Number of years"
:Input T
:P*R*T→I
:Disp "The interest is"
:Disp I
:Float
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c . This program gives both real and complex answers. Solutions of a quadratic equation are also available directly by using the POLY function.

```
PROGRAM:QUADRAT
:Disp "AX2+BX+C=0"
:Input "ENTER A",A
:Input "ENTER B",B
:Input "ENTER C",C
:B2-4*A*C→D
:(-B+√D)/(2A)→M
:Disp M
:(-B-√D)/(2A)→N
:Disp N
```

Two-Point Form of a Line Program

This program will display the slope and y -intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
PROGRAM:TWOPTFM
:Disp "ENTER X1, Y1"
:Input X
:Input Y
:Disp "Enter X2, Y2"
:Input C
:Input D
:(D-Y)/(C-X)→M
:M*(-X)+Y→B
:Disp "Slope ="
:Disp M
:Disp "Y-int ="
:Disp B
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists.

```
PROGRAM:SOLVE
:Disp "AX+BY=C"
:Input "ENTER A",A
:Input "ENTER B",B
:Input "ENTER C",C
:Disp "DX+EY=F"
:Input "ENTER D",D
:Input "ENTER E",E
:Input "ENTER F",F
:If A*E-D*B=0
:Goto A
:(C*E-B*F)/(A*E-D*B)→X
:(A*F-C*D)/(A*E-D*B)→Y
:Disp X
:Disp Y
:Stop
:Lbl A
:Disp "NO UNIQUE SOLUTION"
```

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
:simpint ( )
:Prgm
:setMode("Display Digits","Fix 2")
:Input "Principal",p
:Input "Interest rate in decimal form",r
:Input "Number of years",t
:p*r*t→i
:Disp "The interest is",i
:setMode("Display Digits","Float")
:EndPrgm
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c . This program gives both real and complex answers.

```
:quadrat ( )
:Prgm
:setMode("Complex Format","RECTANGULAR")
:Disp "AX^2+BX+C=0"
:Input "Enter A.",a
:Input "Enter B.",b
:Input "Enter C.",c
:b^2-4*a*c→d
:(-b+√(d))/(2*a)→m
:(-b-√(d))/(2*a)→n
:Disp m
:Disp n
:setMode("Complex Format","REAL")
:EndPrgm
```

Two-Point Form of a Line Program

This program will display the slope and y -intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
:twoptfm ( )
:Prgm
:Disp "ENTER X1, Y1"
:Input x
:Input y
:Disp "ENTER X2, Y2"
:Input c
:Input d
:(d-y)/(c-x)→m
:m*-x+y→b
:Disp "SLOPE ="
:Disp m
:Disp "Y-INT ="
:Disp b
:EndPrgm
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists.

```
:solvelin ( )
:Prgm
:ClrIO
:Disp "Ax+By=C"
:Input "Enter A.",a
:Input "Enter B.",b
:Input "Enter C.",c
:ClrIO
:Disp "Dx+Ey=F"
:Input "Enter D.",d
:Input "Enter E.",e
:Input "Enter F.",f
:If a*e-d*b=0 Then
:  Disp "No unique solution"
: Else
:  (c*e-b*f)/(a*e-d*b)→x
:  (a*f-c*d)/(a*e-d*b)→y
:  Disp x
:  Disp y
:EndIf
:EndPrgm
```

Casio fx-7700G

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
SIMPINT
Fix 2
"PRINCIPAL"?→P
"INTEREST RATE"
"IN DECIMAL FORM"?→R
"NUMBER OF YEARS"?→T
PRT→I
"THE INTEREST IS":I▲
Norm
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c .

```
QUADRAT
"AX2+BX+C=0"
"A="?→A
"B="?→B
"C="?→C
B2-4AC→D
D<0⇒Goto 1
"X=":(-B+√D)÷(2A)▲
"OR X=":(-B-√D)÷(2A)
Goto 2
Lbl 1
"NO REAL SOLUTION"
Lbl 2
```

Two-Point Form of a Line

This program will display the slope and y-intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
TWOPTFM
"ENTER X1, Y1"?→X:Y
"ENTER X2, Y2"?→C:D
(D-Y)÷(C-X)→M
M×(-X)+Y→B
"SLOPE =" :M▲
"Y-INT =" :B
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists.

```
SOLVE
"AX+BY=C"
"A="?→A
"B="?→B
"C="?→C
"DX+EY=F"
"D="?→D
"E="?→E
"F="?→F
AE-DB=0⇒Goto 1
"X=":(CE-BF)÷(AE-DB)▲
"Y=":(AF-CD)÷(AE-DB)
Goto 2
Lbl 1
"NO UNIQUE SOLUTION"
Lbl 2
```

Casio fx-7700GE
Casio fx-9700GE
Casio CFX-9800G
Casio CFX-9850G

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

SIMPINT
Fix 2↵
"PRINCIPAL"?→P↵
"INTEREST RATE"↵
"IN DECIMAL FORM"?→R↵
"NUMBER OF YEARS"?→T↵
PRT→I↵
"THE INTEREST IS":I▲
Norm

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c .

Casio fx-7700GE

Solutions to quadratic equations are also available directly from the Casio calculator's EQUATION MODE.

QUADRAT
"AX²+BX+C=0"↵
"A="?→A↵
"B="?→B↵
"C="?→C↵
 B^2-4AC →D↵
 $D < 0$ ⇒Goto 1↵
 $(-B + \sqrt{D}) \div (2A)$ ▲
 $(-B - \sqrt{D}) \div (2A)$ ↵
Goto 2↵
Lbl 1↵
"NO REAL SOLUTION"↵
Lbl 2

Casio fx-9700GE

Casio CFX-9800G

Casio CFX-9850G

Both real and complex answers are given. Solutions to quadratic equations are also available directly from the Casio calculator's EQUATION MODE.

QUADRAT
"AX²+BX+C=0"↵
"A="?→A↵
"B="?→B↵
"C="?→C↵
 B^2-4AC →D↵
 $(-B + \sqrt{D}) \div (2A)$ ▲
 $(-B - \sqrt{D}) \div (2A)$

Two-Point Form of a Line

This program will display the slope and y -intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

TWOPTFM
"ENTER X1, Y1"?→X:?:Y↵
"ENTER X2, Y2"?→C:?:D↵
 $(D - Y) \div (C - X)$ →M↵
 $M \times (-X) + Y$ →B↵
"SLOPE =":M▲
"Y-INT =":B

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists. Solutions to systems of linear equations are also available directly from the Casio calculator's EQUATION MENU.

SOLVE

"AX+BY=C"↵

"A=": ? → A ↵

"B=": ? → B ↵

"C=": ? → C ↵

"DX+EY=F"↵

"D=": ? → D ↵

"E=": ? → E ↵

"F=": ? → F ↵

AE-DB=0⇒Goto 1↵

"X=":(CE-BF)÷(AE-DB)▲

"Y=":(AF-CD)÷(AE-DB)↵

Goto 2↵

Lbl 1↵

"NO UNIQUE SOLUTION"↵

Lbl 2

Sharp EL-9200C Sharp EL-9300C

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
simpint
-----REAL
Input principal
Print "Interest rate
Print "in decimal form
Input rate
Print "Number of years
Input time
interest=principal*rate*time
Print interest
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c . This program gives both real and complex answers.

```
quadratic
-----COMPLEX
Print "ax2+bx+c=0"
Input a
Input b
Input c
d=b2-4a*c
x1=(-b+√d)/(2a)
x2=(-b-√d)/(2a)
Print x1
Print x2
End
```

Two-Point Form of a Line

This program will display the slope and y -intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
twoptform
Print "enter x1, y1
Input x
c=x
Input y
d=y
Print "enter x2, y2
Input x
Input y
m=(d-y)/(c-x)
b=m*(-x)+y
Print "slope
Print m
Print "y-int
Print b
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists. Equations must be entered in the form: $AX+BY=C$; $DX+EY=F$. Uppercase letters are used so that the values can be accessed in the calculation mode of the calculator.

```
solve
-----REAL
Print "AX+BY=C"
Input A
Input B
Input C
Print "DX+EY=F"
Input D
Input E
Input F
If A*E-D*B=0 Goto 1
X=(C*E-B*F)/(A*E-D*B)
Y=(A*F-C*D)/(A*E-D*B)
Print X
Print Y
End
Label 1
Print "no unique solution"
End
```

HP-38G

Simple Interest Program

This program can be used to find the amount of simple interest earned on a given principal at a given annual interest rate for a certain amount of time.

```
SIMPINT PROGRAM
INPUT P; "SIMPINT"; "ENTER
PRINCIPAL";1:
INPUT R; "SIMPINT"; "INTEREST RATE IN DECIMAL
FORM";1:
INPUT T; "SIMPINT"; "ENTER NUMBER OF YEARS";1:
P*R*T►I:
DISP 3; "INTEREST IS" I:
FREEZE:
```

Quadratic Formula Program

This program will display the solutions of a quadratic equation or the words "No Real Solution." To use the program, write the quadratic equation in general form and enter the values of a , b , and c . This program displays the answer in complex form (x, y) , where x is the real part and y is the imaginary part.

```
QUADRAT PROGRAM
INPUT A; "AX2+BX+C=0";
"ENTER A"; " ";1:
INPUT B; "AX2+BX+C=0";
"ENTER B"; " ";1:
INPUT C; "AX2+BX+C=0";
"ENTER C"; " ";1:
B2-4AC►D:
(-B+√D)/(2A)►Z1:
(-B+√D)/(2A)►Z2:
DISP 3;Z1:
DISP 5;Z2:
FREEZE
```

Two-Point Form of a Line

This program will display the slope and y-intercept of the line that passes through two points, (x_1, y_1) and (x_2, y_2) , entered by the user.

```
TWOPTFM PROGRAM
INPUT X: "ENTER X1, Y1";
"ENTER X1";1:
INPUT Y: "ENTER X1, Y1";
"ENTER Y1";1:
INPUT C: "ENTER X2, Y2";
"ENTER X2";1:
INPUT D: "ENTER X2, Y2";
"ENTER Y2";1:
(D-Y)/(C-X)►M
M*-X+Y►B
DISP 1; "SLOPE ="M:
DISP 3; "Y-INT ="B:
FREEZE:
```

Systems of Linear Equations Program

This program will display the solution of a system of two linear equations in two variables of the form

$$ax + by = c$$

$$dx + ey = f$$

if a unique solution exists.

1. Input the 2 programs SOLVE and SOLVE.SOLN.
2. Run the SOLVE program.

```
SOLVE
SOLVE PROGRAM
INPUT A;"AX+BY=C";
  "ENTER A";" ";1:
INPUT B;"AX+BY=C";
  "ENTER B";" ";1:
INPUT C;"AX+BY=C";
  "ENTER C";" ";1:
INPUT D;"DX+EY=F";
  "ENTER D";" ";1:
INPUT E;"DX+EY=F";
  "ENTER E";" ";1:
INPUT F;"DX+EY=F";
  "ENTER F";" ";1:
ERASE:
IF AE-DB==0
THEN DISP 3; "NO UNIQUE
  SOLUTION":
ELSE RUN "SOLVE.SOLN":
END:
FREEZE:
SOLVE.SOLN PROGRAM
(CE-BF)/(AE-DB)►X:
(AF-CD)/(AE-DB)►Y:
DISP 3;"X="X:
DISP 5;"Y="Y:
```