

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
```