

## 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"
```