

The Quadratic Formula Program

PRGM NEW 1:Create New
Use ALPHA to enter the name QUADFORM Press Enter

```
ClrHome
Disp "AX^2+BX+C=0"
Prompt A
Prompt B
Prompt C
ClrHome
 $B^2-4*A*C \rightarrow D$ 
Disp "DISCRIMINANT"
Disp D
Disp ""
Disp "PUSH ENTER TO"
Disp "CONTINUE"
Pause
ClrHome
```

```
If D>0
Then
Disp "TWO REALS"
Disp  $(-B+\sqrt{D})/(2*A)$ 
Disp  $(-B-\sqrt{D})/(2*A)$ 
End
```

```
 $-B/(2*A) \rightarrow P$ 
```

```
If D=0
Then
Disp "ONE REAL"
Disp P
End
```

```
If D<0
Then
Disp "TWO COMPLEX"
Disp "SOLUTIONS A+BI"
Disp "AND A-BI WHERE"
Disp "A ="
Output(4,5,P)
Disp "B ="
Output(5,5, $\sqrt{(-D)/(2*A)}$ )
```

```
Output(7,1,"PUSH ENTER TO")
Output(8,1,"CONTINUE")
Pause
ClrHome
End
```

```
Disp "VERTEX (X,Y)"
Disp P
Disp  $A*P^2+B*P+C$ 
(end of program)
```