Solving Equations Graphically on the CALCULATOR

Step 1) Write the equation to be solved in *zero* form. (That is, use algebra to get all to the terms to one side and zero on the other.)

Step 2) Construct a function from the terms, enter it into the function editor window and [GRAPH] it in the Standard Viewing Window.

Step 3) Adjust the XMin and XMax values so that all of the *x*-intercepts can be seen.

Step 4)

TI 83/84

Press [2nd] [CALC]

Select: zero

Choose an *x*-intercept and use the left (◀) or right (▶) arrow keys to move the trace bug so that it is to the left of the intercept.

Press [ENTER]

Move the trace bug so that it is to the right of the intercept.

Press [ENTER]
Press [ENTER] (again)

The zero appears. This is one solution to the original equation.

TI 85/86

With the [GRAPH] menu bar showing

[Y=] [WIND] [ZOOM] [TRACE] [GRAPH]

press [MORE] [MATH] [ROOT]

Choose an *x*-intercept and use the left (◀) or right (▶) arrow keys to move the trace bug so that it is to the left of the intercept.

Press [ENTER]

Move the trace bug so that it is to the right of the intercept.

Press [ENTER]
Press [ENTER] (again)

The root appears. This is one solution to the original equation.

TI 89/92

Press [F5]

Select: Zero

Choose an *x*-intercept and use the left (◀) or right (▶) arrow keys to move the trace bug so that it is to the left of the intercept.

Press [ENTER]

Move the trace bug so that it is to the right of the intercept.

Press [ENTER]

The zero appears. This is one solution to the original equation.

Step 5) Repeat **Step 4** for any other *x*-intercepts.