

# How to Do Page 208 Example 1

## Using TI-Nspire™ With Touchpad

Use TI-Nspire™ with Touchpad to determine the roots of the equation  $-x^2 + 8x - 16 = 0$ .

1. Press the home key and open 1: New Document and then 2: Add Graphs.
2. Enter the quadratic equation.
  - Press  $\boxed{-}\boxed{x}\boxed{x^2}\boxed{+}\boxed{8}\boxed{x}\boxed{-}\boxed{16}\boxed{\text{enter}}$  as shown in Figure 1.

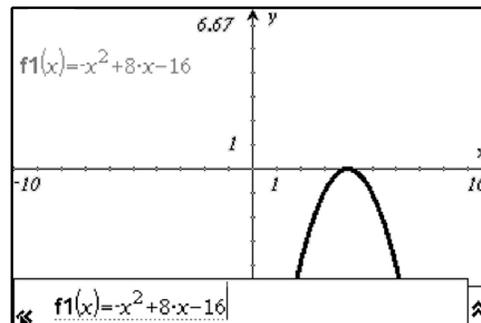


Figure 1

3. To find the roots, follow these steps:
  - Use Trace and move the cursor to the  $x$ -intercept.
  - Press  $\boxed{\text{menu}}$  choose 5: Trace.
  - Select 1: Graph Trace as shown in Figure 2.

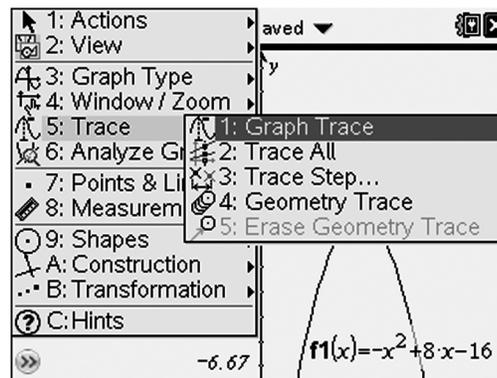


Figure 2

- Use the arrow keys to move the cursor to the  $x$ -intercept. At the  $x$ -intercept, the handheld will indicate *maximum* because, for this parabola, the vertex represents the location of both the zero and the maximum. See Figure 3.

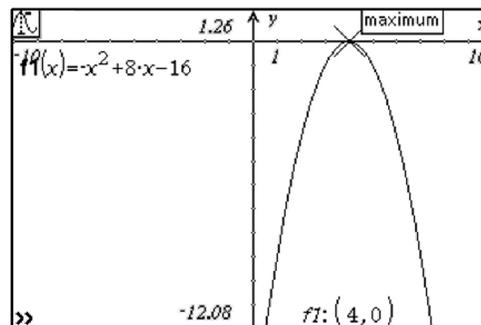


Figure 3