

## Self-Check for Tutorial 8 Graphing Quadratic and Cubic Equations

1. Describe the graph of  $y = 4 - x^2$  as compared to the graph of  $y = x^2$ .

- A.  $y = 4 - x^2$  opens up, vertex at (0, 4)
- B.  $y = 4 - x^2$  opens down, vertex at (0, 4)
- C.  $y = 4 - x^2$  opens up, vertex at (4, 0)
- D.  $y = 4 - x^2$  opens down, vertex at (4, 0)

3. Find the largest root of  $y = x^3 - 6x^2 + 12$ .

- A.  $x = -1.28$
- B.  $x = 1.71$
- C.  $x = 5.62$
- D.  $x = 12.00$

2. Solve  $y = x^2 + 6x - 8$ .

- A.  $x = -2$  and  $x = 4$
- B.  $x = -1.123$  and  $x = 7.123$
- C.  $x = -4$  and  $x = 2$
- D.  $x = -7.123$  and  $x = 1.123$

4. Tell what the vertex of  $y = 2x^2 - 5x - 3$  is and whether it is a maxima or minima.

- A. Minimum at (-0.5, 0)
- B. Minimum at (1.25, -6.13)
- C. Maximum at (3, 0)
- D. Maximum at (-1.25, .13)

## Solutions to Self-Check for Tutorial 8 Graphing Quadratic and Cubic Equations

1. Describe the graph of  $y = 4 - x^2$  as compared to the graph of  $y = x^2$ .

D.  $y = 4 - x^2$  opens down, vertex at (4, 0)

3. Find the largest root of  $y = x^3 - 6x^2 + 12$ .

C.  $x = 5.62$

2. Solve  $y = x^2 + 6x - 8$ .

D.  $x = -7.123$  and  $x = 1.123$

4. Tell what the vertex of  $y = 2x^2 - 5x - 3$  is and whether it is a maxima or minima.

B. Minimum at (1.25, -6.13)