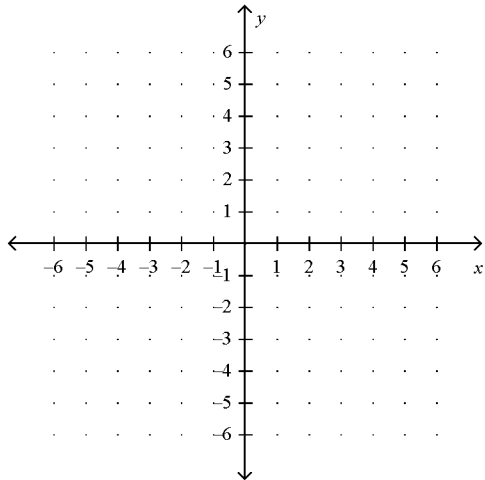**MA90   Exercises for section 9.6   Graphing Quadratic Functions**

Multiple Choice
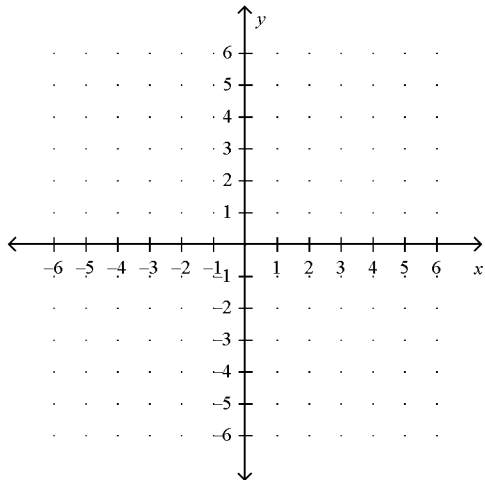*Identify the choice that best completes the statement or answers the question.*
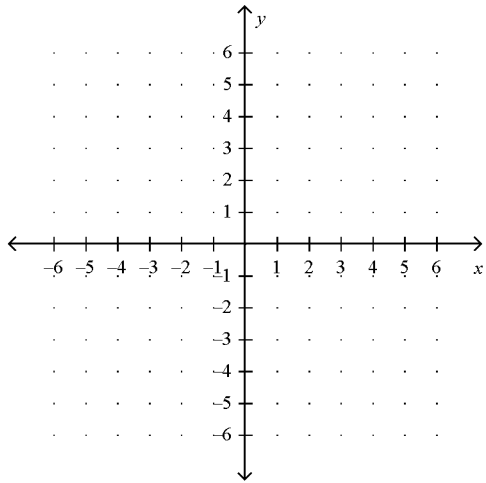
_____   1. Graph the equation.

$$y = x^2 - 2$$

_____   2. Graph the equation.

$$y = (x + 3)^2$$
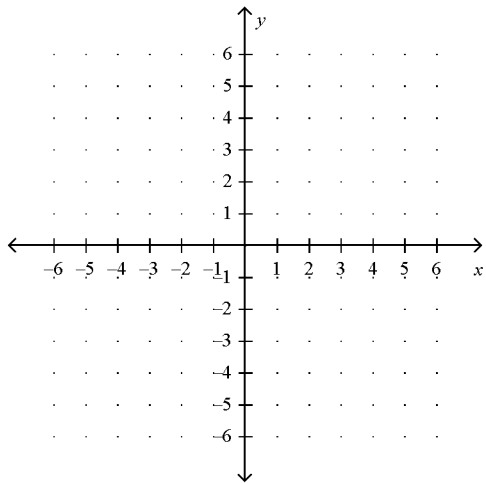
_____ 3. Graph the equation.
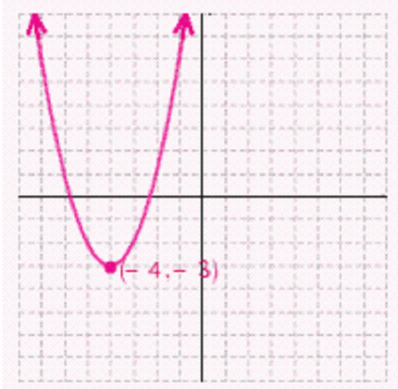
$$y = (x + 1)^2 - 2$$
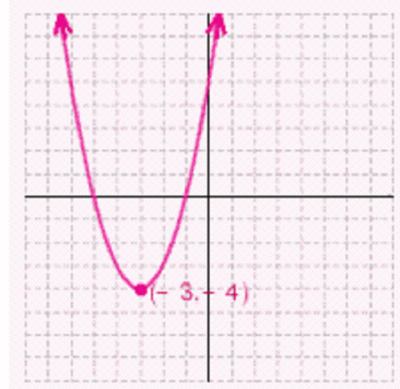
_____ 4. Graph the equation.

$$y = (x + 2)^2 + 3$$

_____ 5. Graph the equation. Begin by completing the square on the first two terms.
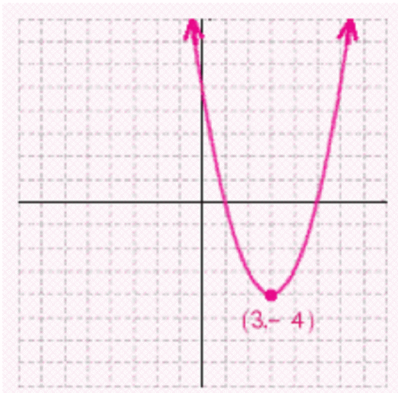
$$y = x^2 - 6x + 5$$

a.

(- 4, - 3)

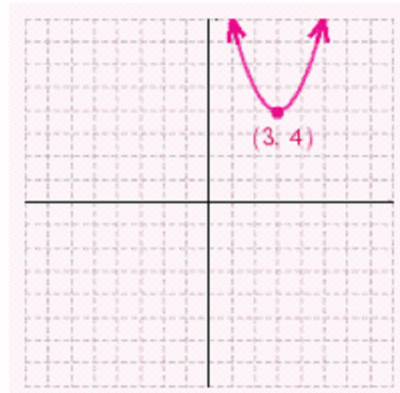d.
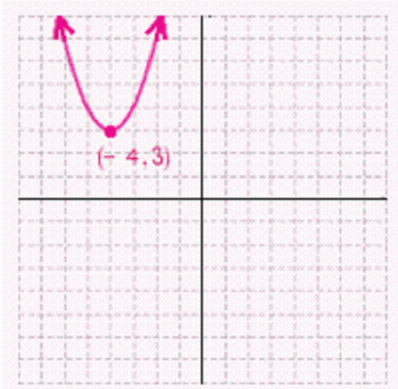

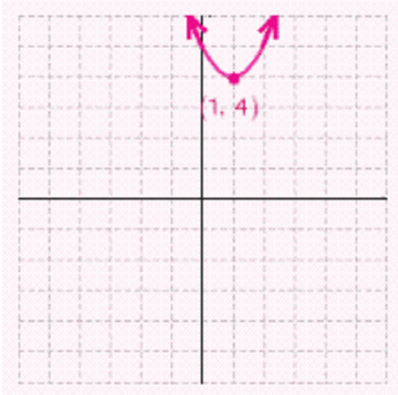(- 3, - 4)
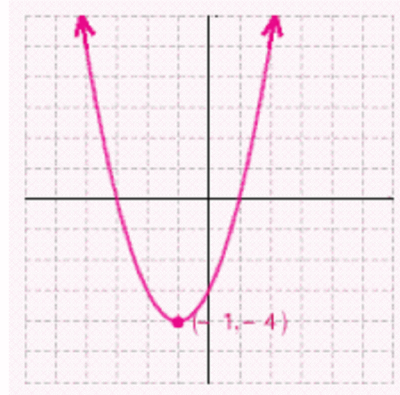
b.

(3, - 4)

e.

(3, 4)

c.

(- 4, 3)

____ 6. Graph the equation. Begin by completing the square on the first two terms.

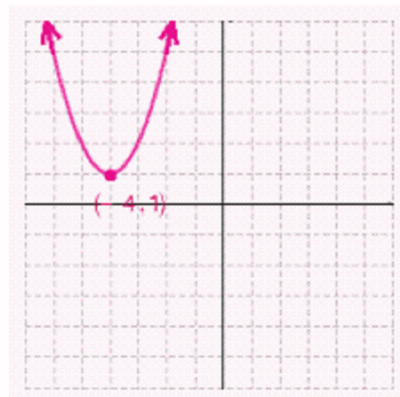$$y = x^2 - 2x - 3$$

a.

(1, 4)
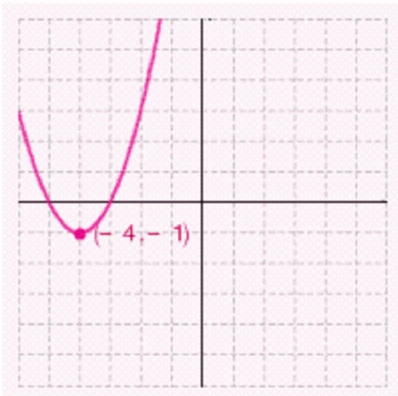
d.
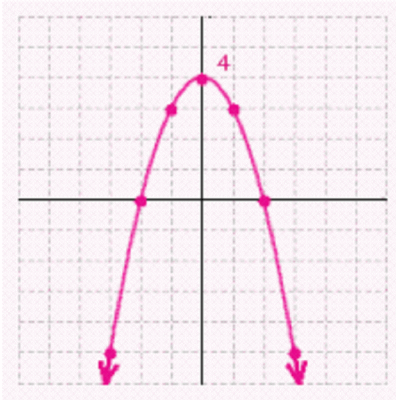

(−1, −4)

b.

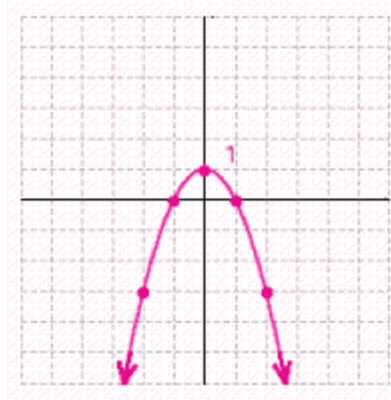
(1, −4)

e.

(−4, 1)

c.

(−4, −1)
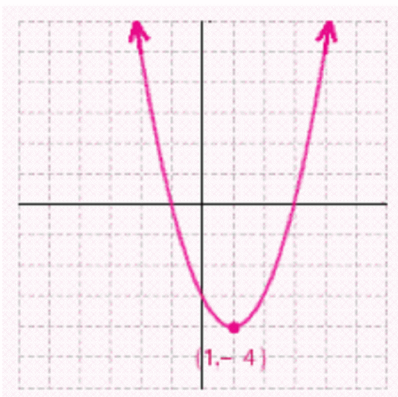
_____ 7. The following equation has a graph that is a parabola. However, the graph of this equation will open downward; the vertex of it will be the highest point on the graph. Graph the equation by first making a table of ordered pairs using the given values of x.
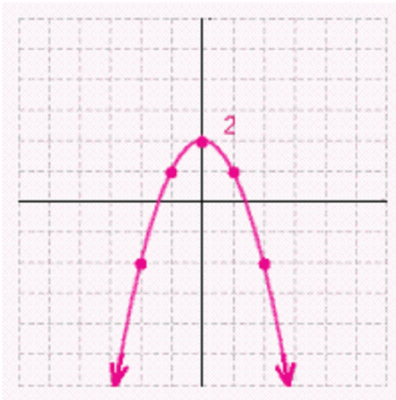
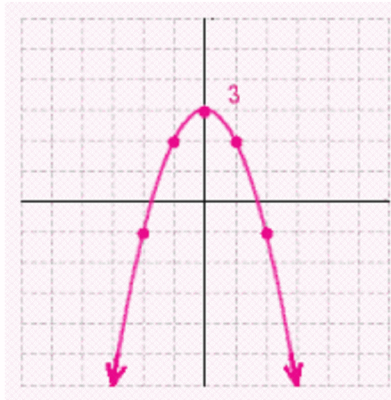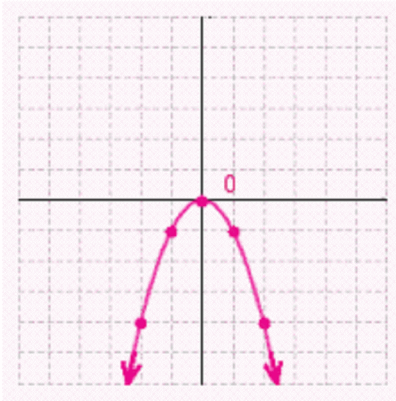$y = 4 - x^2 \qquad x = -3, -2, -1, 0, 1, 2, 3$.
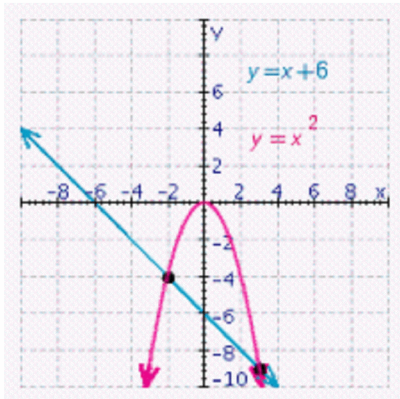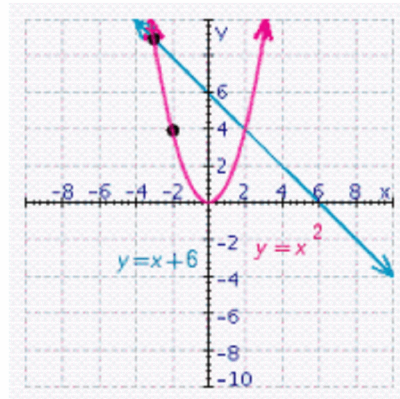
a.

d.

b.

e.

c.

_____ 8. Graph the line $y=x+6$ and the parabola $y=x^2$ on the same coordinate system. Name the points where the two graphs intersect.

a.

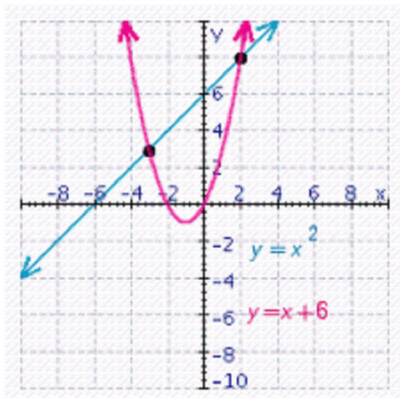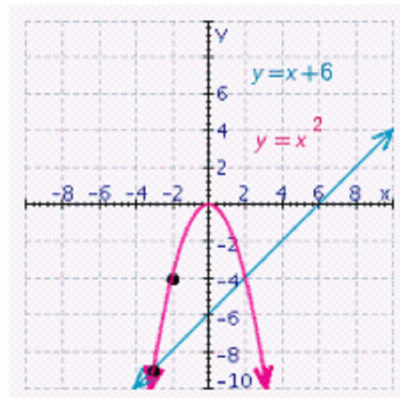

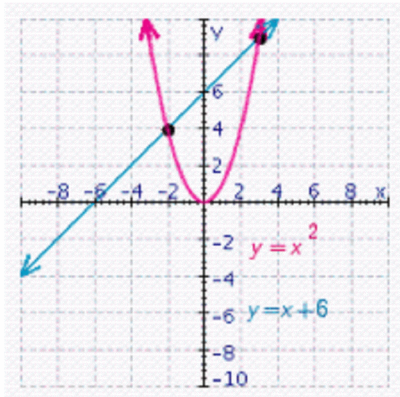intersection: (-2, -4), (3, -9)

d.

intersection: (-2, 4), (−3, 9)

b.

intersection: (-3, 3), (2, 8)

e.

intersection: (-2, -4), (−3, -9)
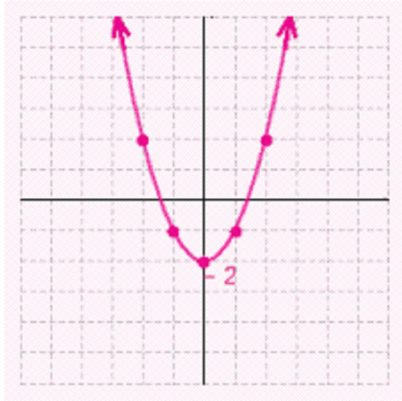
c.

intersection: (-2, 4), (3, 9)

MULTIPLE CHOICE

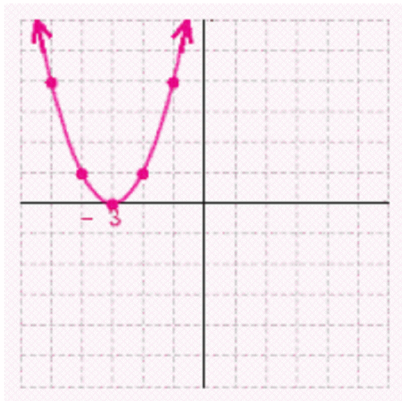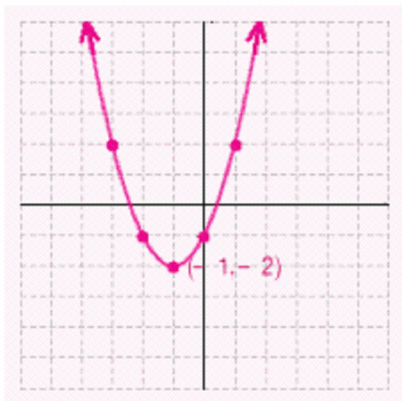1.   ANS:

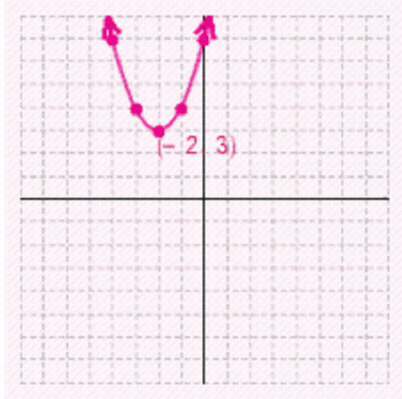PTS: 1
2.   ANS:

PTS: 1
3.   ANS:

PTS: 1

4. ANS:

PTS: 1

5. ANS: B   PTS: 1
6. ANS: B   PTS: 1
7. ANS: A   PTS: 1
8. ANS: C   PTS: 1