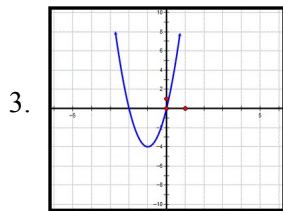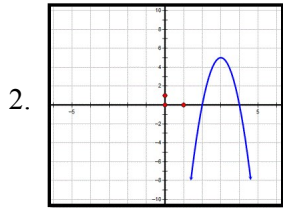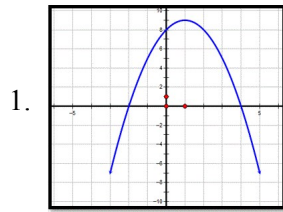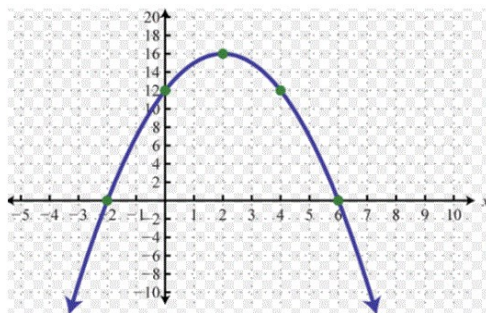Name: _____

Teacher: Lee

1. Which choice is the graph of $y = (4 - x)(x + 2)$?

1.

2.

3.

4.
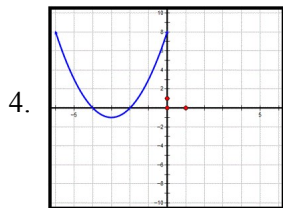
2. The graph of a quadratic function is shown below:
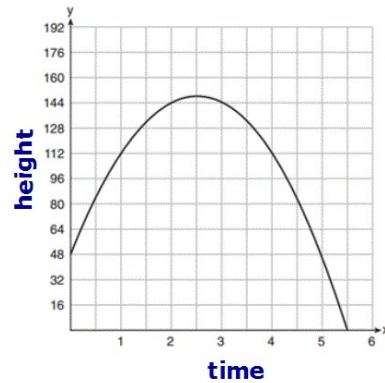

What are the coordinates of the vertex of the function?

1. (-2,0)   2. (0,12)
3. (2,8)   4. (2,16)

3. In the function $f(x) = (x - 2)^2 + 4$, the minimum value occurs when x is
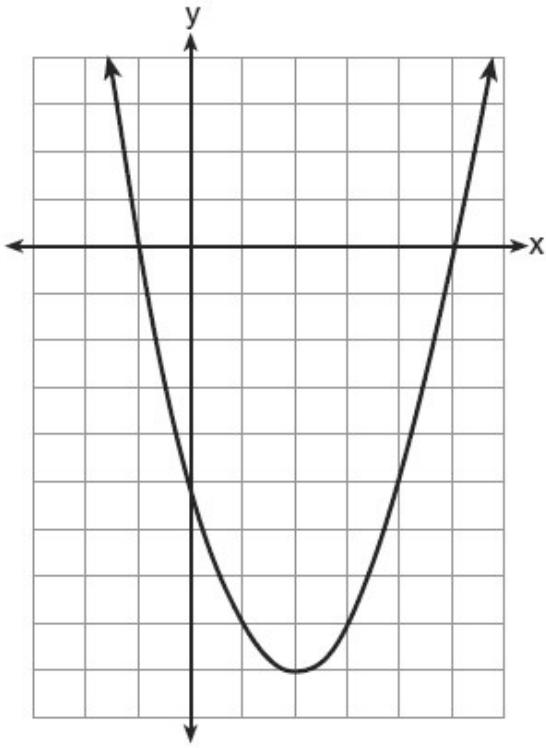
1. −2   2. 2
3. −4   4. 4

4. A ball is thrown into the air from the edge of a 48-foot high cliff so that it eventually lands on the ground. The graph below shows the height, y, of the ball from the ground after x seconds.

For which interval is the ball's height always *increasing*?

1. $0 \leq x \leq 5.5$
2. $0 < x < 2.5$
3. $2.5 < x < 5.5$
4. $x \geq 2.5$

5. The graph of $f(x)$ is shown below.

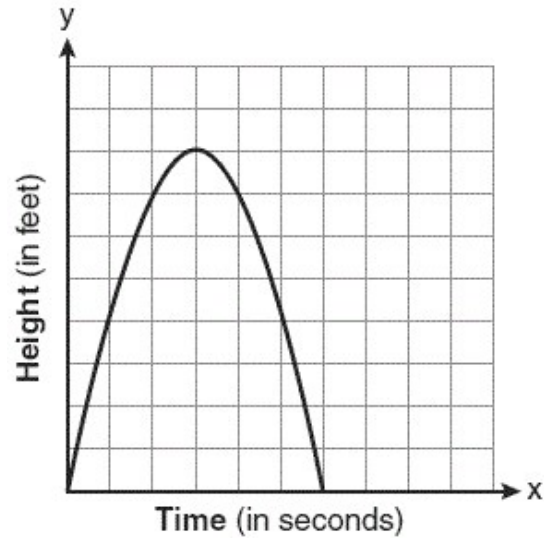Based on this graph, what are the roots of the equation $f(x) = 0$?

1. 1 and −5
2. −1 and 5
3. 2 and −9
4. −1 and −5 and 5

6. Given the equation $(x − 6)^2 = y + 7$, find the vertex.

   1. (−7,6)   2. (7,−6)

   3. (−6,7)   4. (6,−7)

7. The graph below represents the parabolic path of a ball kicked by a young child. What are the vertex and the axis of symmetry for the parabola?
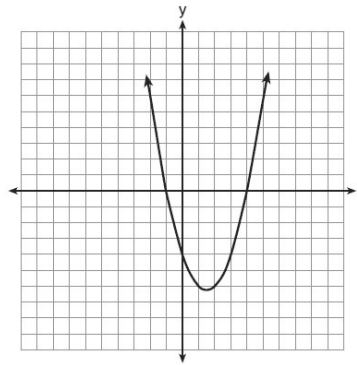

1. vertex: (3, 8); axis of symmetry: $x = 3$
2. vertex: (3, 8); axis of symmetry: $y = 3$
3. vertex: (8, 3); axis of symmetry: $x = 3$
4. vertex: (8, 3); axis of symmetry: $y = 3$

8. Which parabola has an axis of symmetry of $x = 1$?

1.

2.

3.

4.
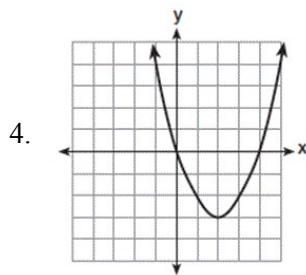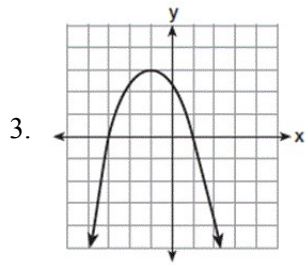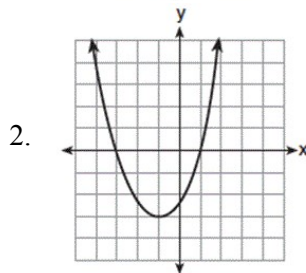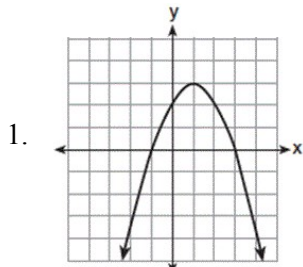
9. The roots of a quadratic equation can be found using the graph below.

What are the roots of this equation?

    1. –4, only   2. –4 and –1

    3. –1 and 4   4. –4, –1, and 4

10. The equation of the axis of symmetry of the graph $y = 2x^2 - 3x + 7$ is

    1. $x = \dfrac{3}{4}$

    2. $y = \dfrac{3}{4}$

    3. $x = \dfrac{3}{2}$

    4. $y = \dfrac{3}{2}$