

Section 4.3 Day 3 Notes

Solve the following Quadratic Equations by Factoring:

1) $x^2 + x - 12 = 0$

2) $x^2 + 18x + 81 = 0$

3) $x^2 - 12x + 27 = 0$

4) $x^2 - 4x - 32 = 0$

5) $x^2 - 25 = 0$

6) $4x^2 - 12x + 9 = 0$

7) $4x^2 - 16x + 7 = 0$

8) $4x^2 + 8x + 3 = 0$

Given the following roots, write the factored form of the quadratic function, then turn it into the Standard Form.

9) 3 and 4

10) 2 and -5

11) -3 and -5

12) -4 and 6

13. Use the following Quadratic Function to identify the axis of symmetry, vertex, y-intercept, solutions, domain, range, and graph:

$$f(x) = x^2 - 2x - 8$$

Find the axis of symmetry:

Find the vertex:

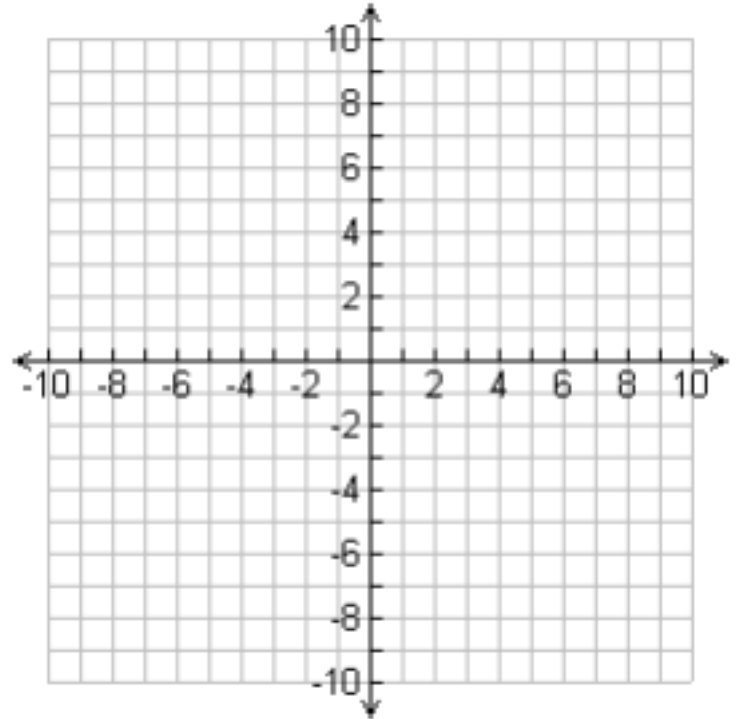
Name the y-intercept:

Reflection of the y-intercept:

Identify the solutions:

Domain:

Range:



14. Use the table to determine the location of the zeros of the quadratic function.

x	-7	-6	-5	-4	-3	-2	-1	0
f(x)	-8	-1	4	4	-1	-8	-22	-48

15. The equation $h(t) = 64t - 16t^2$, where $h(t)$ is the height of an object in feet and t is the time in seconds, is representing the height of a baseball.

- How long does it take for the ball to hit the ground?
- When did the ball reach its maximum height?
- What was the ball's maximum height?
- At what time did the ball reach the height of 48 feet?