

$$\textcircled{4} \quad x^2 - 8x = -12$$

$$\quad \quad \quad +12 \quad +12$$

$$x^2 - 8x + 12 = 0$$

$$(x-6)(x-2) = 0$$

$$x-6=0$$

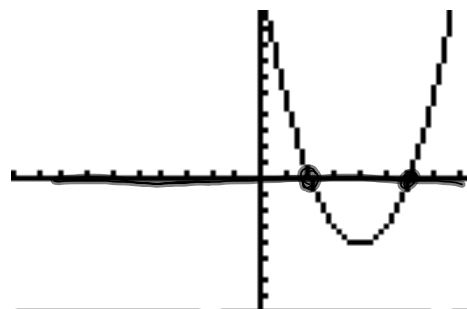
$$x=6$$

$$x-2=0$$

$$x=2$$

[Shades] [PoI-Trace]

$y=0$, x -axis



Section 5.1A

To solve the quadratic equation $f(x) = 0$, means to find the values of x that make the equation true. When $y = 0$ in an ordered pair, the point is on the x -axis. A solution to the quadratic equation $f(x) = 0$, is also called an x -intercept or zero or root.

To solve a quadratic equation $g(x) = k$, where $k \neq 0$, we need to find the values of x , where the function is equal to k . These values will not be on the x -axis but will be on the horizontal line $y = k$.

This section provides the opportunity to explore these concepts.

- Find the solutions to the quadratic equation $f(x) = 0$. The graph of $f(x)$ is provided to the right.

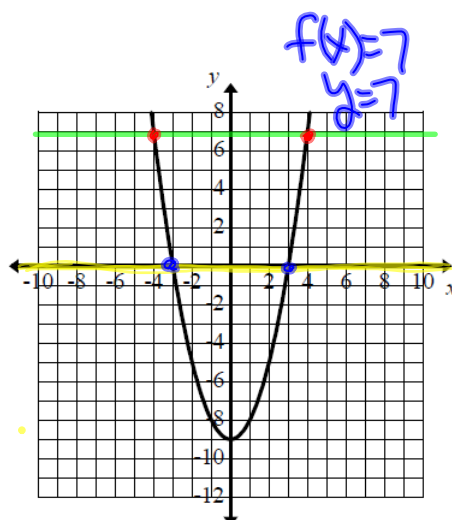
When $f(x) = 0$, $x = -3$ and $x = 3$.

These values of x are called the solutions to the equation $f(x) = 0$.

- Find the solutions to the quadratic equation $f(x) = 7$. The graph of $f(x)$ is provided to the right.

When $f(x) = 7$, $x = -4$ and $x = 4$.

These values of x are called the solutions to the equation $f(x) = 7$.

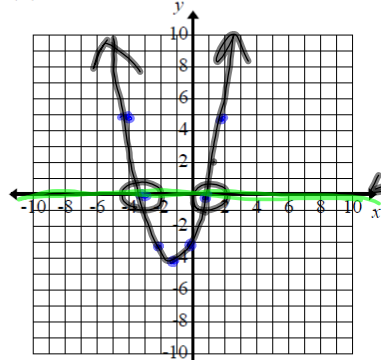


Learning Target 5.1

I can use tables and graphs to solve quadratic equations including real-world situations and translate between representations.

- 3) Graph the function $f(x)$ below. Use the graph to identify the solutions to $f(x) = 0$. Verify your results algebraically.

a) $f(x) = x^2 + 2x - 3$



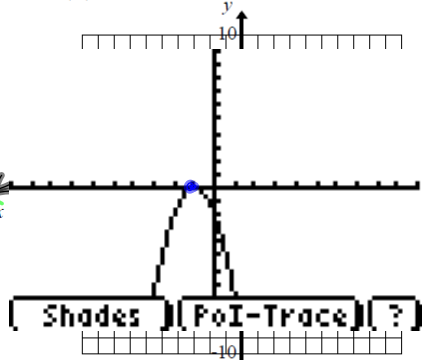
Solution(s):

Verify:

$x = -3$ and $x = 1$

X	Y
-4	5
-3	0
-2	3
-1	-4
0	-3
1	0
2	5

b) $f(x) = -2x^2 - 4x - 2$



Solution(s):

Verify:

$x = -1$
 $x = -1$
 double root

UNIT 5 Part 1: 2T Intermediate Algebra B

Name: _____ Period: _____

Homework Solutions: <http://anokahennepin.schoolwires.net/Page/30410>

Use this guide to help you evaluate where you are at in this chapter, and identify areas that you need extra help in.

Date Covered	LT Number	Learning Target (LT) (What you should know)	Practice Problems	Homework Score	Self-Evaluation (Do you know it?)
3/12	5.2	I can solve quadratic equations by factoring	5.2A #1 - 33 odd (P-9)		😊 😐 😞
3/13			5.2B #1 - 9 (P-11)		😊 😐 😞
3/16			5.2C #6,8 (page 13) #13-17 (P-12)		😊 😐 😞
3/17 3/18 → Quiz!	5.1	I can solve quadratic equations by graphing	5.1A #1, 2, 6-14 (P-11) 9-14		😊 😐 😞
3/19			5.1B #2-5, 8-10 (P-5)		😊 😐 😞