

Graph.

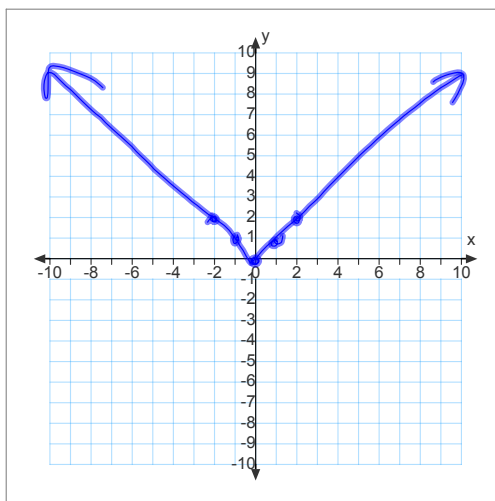
$$y = |x|$$

Opens Up/Down

Domain: $\mathbb{R}$

Range: $y \geq 0$

Vertex: $(0, 0)$



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x	y
-2	2
-1	1
0	0
1	1
2	2

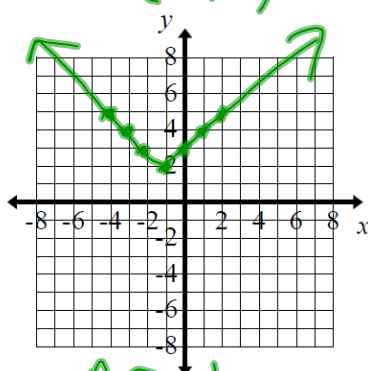
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#19 – 20: Identify the vertex. Graph each absolute value equation.

19) $y = |x + 1| + 2$

vertex: $(-1, 2)$

x	y
-4	5
-3	4
-2	3
-1	2
0	3
1	4
2	5

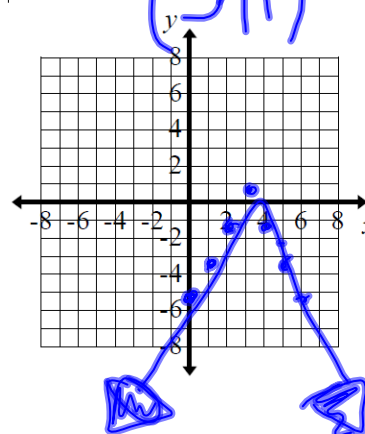


D: $\mathbb{R}$, ARN
R: $y \geq 2$

20) $y = -2|x - 3| + 1$

vertex: $(3, 1)$

x	y
0	-5
1	-3
2	-1
3	1
4	-1
5	-3
6	-5



$y = a|x|$
↑
+ : open up
- : open down

Similar to the graphs of quadratic equations (parabolas), the graph of an absolute value function has several significant features to be aware of.

#21 – 24: Identify each of the significant characteristics based on the equation, the graph or the table of values.

21) **Graph**

Table of Values

x	y
-2	-2
-1	0
0	2
1	4
2	2
3	0
4	-2

Equation: _____

Opens "UP" or "DOWN" (circle the correct option) DOWN

Axis of symmetry: $x = 1$

Vertex: (1, 4)

Domain: $\mathbb{R}$

Range: $y \leq 4$

22) **Graph**

Table of Values

x	y
-5	-1
-4	-1
-3	-3
-2	-5
-1	-3
0	-1
1	1

Equation: $y = 2|x + 2| - 5$

Opens "UP" or "DOWN" (circle the correct option) UP

Axis of symmetry: $x = -2$

Vertex: (-2, -5)

Domain: $\mathbb{R}$

Range: $y \geq -5$

23) **Graph**

Table of Values

x	y
0	-1
3	2
-1	-2
2	1
-3	0
1	0
-4	1

Equation: _____

Opens "UP" or "DOWN" (circle the correct option) UP

Axis of symmetry: $x = -1$

Vertex: (-1, -2)

Domain: $\mathbb{R}$

Range: $y \geq -2$

24) **Graph**

Table of Values

x	y
-4	0
-1	-1

Equation: _____

Opens "UP" or "DOWN" (circle the correct option) UP

Axis of symmetry: $x = -1$

Vertex: (-1, -1)

Domain: $\mathbb{R}$

Range: $y \geq -1$

UNIT 5 Part 3: Intermediate Algebra B Name: _____ Period: _____

<http://anokahennepin.schoolwires.net/Page/30418>

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

☺=Proficient (you are awesome at this) ☹=Middle (you need some improvement) ☹☹=Not Proficient (HELP!)

Intermediate Algebra Unit 5 : Solving Quadratic Equations					
Date Covered	LT Letter	Learning Target (LT) (What you should know)	Practice Problems	Homework Score	Self-Evaluation (Do you know it?)
4/17	8.1A	I can graph absolute value equations and demonstrate understanding of the features of its graph.	8.1A #1-12 (P-173)		☹ ☹ ☹
	8.2 A	I can solve absolute value equations.	8.2A #1-9 (P-183)		☹ ☹ ☹
	5.2 E	I can solve quadratic equations by square roots to get real or complex solutions.	5.2 E #1-8 (P-19)		☹ ☹ ☹
	5.2 F		5.2 F #2-5, 7-15 (P-15)		☹ ☹ ☹
	5.2 H		5.2 H #1-6, 14-19 (P-29)		☹ ☹ ☹
	5.2 N	I can choose the best method to solve for quadratic equations.	5.2 N #1-3, 5-7, 12-17 (P-41)		☹ ☹ ☹
	5.2 O		5.2 O #1-8 (P-51)		☹ ☹ ☹
4/28	NO CLASS ACT TESTING!				
4/29	Unit 5 Part 3 Review		Review Packet		☹ ☹ ☹
Test Date: 4/30		Test Reminders:		TEST TOTAL: # of Questions = Points =	Review Done? Y/N Review Checked with answer key? Y/N Did you ask about the

Updated 4/17/2015