Daily Agenda

Learning Target:
I can solve absolute value equations and inequalities.
I can graph an absolute value function.

Homework
1.6 Day 2 Formative

Assessments
Unit 1 Test 9/15
No Calculator

Our greatest glory is not in never failing, but in rising up every time we fail.
-Ralph Waldo Emerson

Nov 15-8:24 PM

Number Talks

36
Dylan
$63-30+3$
36

63-27
Hannah
$13-7=6$
$50-20=30$
36

Aninda
$63-20=43$
-7
36

Justin
$63-7=56$
-20
36

Sep 1-7:08 AM

1.6 Absolute Value Equations and Inequalities

$\frac{2|3x+1|}{2}=\frac{6}{2}$

$|3x+1|=3$

$3x+1=3$ or $3x+1=-3$
$-1\ -1$ $-1\ -1$
$3x=2$ $3x=-4$
$x=2/3$ $x=-4/3$

$|2x-7|+6=12$
$-6\ -6$
$|2x-7|=6$

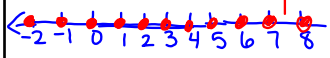
$2x-7=6$ or $2x-7=-6$
$+7\ +7$ $+7\ +7$
$2x=13$ $2x=1$
$x=13/2$ or $x=1/2$

Nov 8-1:55 PM

1.6 Absolute Value Equations and Inequalities

Solve the inequality and graph the solution on a number line.

$|x-3|+2\le 7$ {integers}
$-2\ -2$
$|x-3|\le 5$
$-5\le x-3\le 5$
$+3\quad +3\quad +3$
$-2\le x\le 8$ {int}



$6-|x+1|<3$
$-6\quad -6$
$-|x+1|<-3$
$-1\quad -1$
$|x+1|>3$

$x+1>3$ or $x+1<-3$
$-1\ -1$
$x>2$ $x<-4$

Nov 8-1:55 PM

1.6 Absolute Value Equations and Inequalities

Solve the inequality and graph the solution on a number line.

$|x+4|\ge -2$

all real #'s b/c abs. value is always + or 0

$|5+4|\ge -2$
$|9|\ge -2$
$9\ge -2$

$|-10+4|\ge -2$
$|-6|\ge -2$
$6\ge -2$

Nov 8-1:55 PM

1.6 Absolute Value Equations and Inequalities

Solve the inequality and graph the solution on a number line.

$|x-4|>0$

1) all reals except 4
2) $x\neq 4$
3) $(-\infty,4)\ (4,\infty)$

(,) not incl.
[,] incl.
∞ not # so always ( )

Nov 8-1:55 PM

1.6 Absolute Value Functions

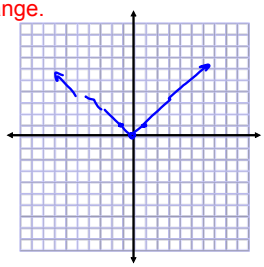
Graph f(x). State the domain and range.

$f(x) = |x|$

D: all real #'s

R: all non-neg #'s

$y \geq 0$



Nov 8-1:55 PM

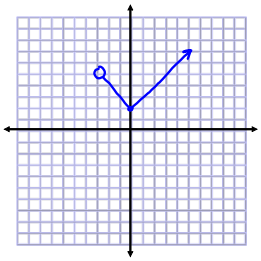
1.6 Absolute Value Functions

Graph f(x) in the indicated domain.

State the range.

$f(x) = |x| + 2, \; x > -3$

Range: $y \geq +2$



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