## Warm Up    $y=a|x-h|+k$

1. Graph the following.

$y=|x-2|+3$

$a=1 \quad h=2 \quad k=3$

$v(2,3)$

$D:(-\infty,\infty)$

$R:(3,\infty)$

**2.** Given: $y=-2|x+4|-3$

Explain the specific transformation between the given eq
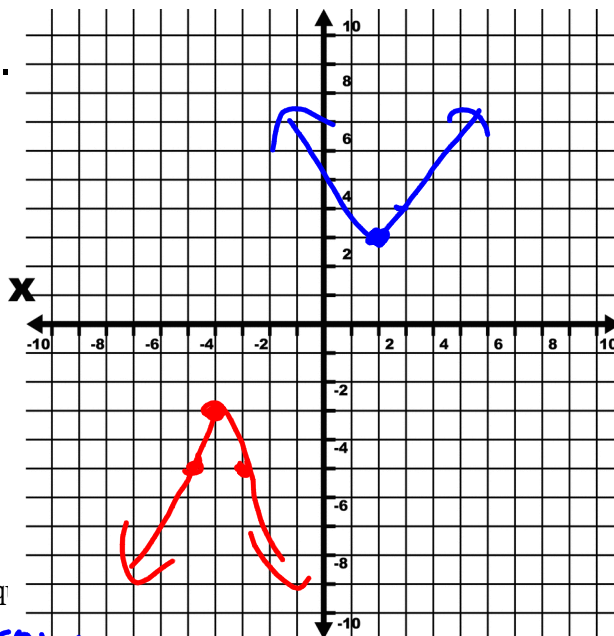
a ___-2___ Reflect/more narrow

h ___-4___ left 4

k ___-3___ Down 3

The vertex of the given equation is (__-4__, __-3__)

Domain: $(-\infty,\infty)$

Range: $(-\infty,-3)$

$y=-2|x+4|-3$

# Homework Questions

# AV Grids

# Absolute Value DLT

8. $|-4|^2 + |-7| - 2 =$

F. 21

G. 13

H. 7

J. 25

K. 17

# Learning Targets

### Algebra 2 Trig

Chapter 2 - Unit Plan 2017-18
1st degree Polynomials Linear Equations and Functions

| DAY | Book Section | Learning Targets | Homework due next class |
|---|---|---|---|
| 1 | -FOUNDATIONS of Algebra 1 WS<br>-Growth Measure for Alg2Trig<br>-Get to Know Ya | Polynomials, Functions, Function Notation, Polynomials, Independent, Dependent, Input, Output DOMAIN, RANGE<br>***Summer Homework DUE! 22pts*** | -Finish Foundations WS<br>-Pg. 341, #3 – 8  Pg. 76, #5 – 23 odd, 35, 38, 39, 45, 46<br>*-Last Chance Summer HW 20pts* |
| 2 | 2.2, 2.3, 2.4 Prerequisite skills from ALG1 | -Graphing & Writing Equations of Lines, Slope | -Finish Writing Equations WS<br>- Pg 86, #24, 44, 45, Pg 94 #60, 68<br>-Pg. 93 #24, 27, 28, 43 – 46, pg 101 #10, 11, 18, 19, 22, 23, 42, 44 |
| 3 | 2.2, 2.3, 2.4, 2.6 Correlation WS Summer Homework Questions | -Correlation & Best Fitting Lines | -Finish Correlation WS<br>-Pg 117, #3 – 6, 13, 17 – 21, 27 |
| 4 | 2.7 Extension | **-SUMMER HOMEWORK QUIZ (No calculator)!!!**<br>-Piecewise Functions | |
| 5 | | -Piecewise Functions In class Piecewise WS | -Pg 131, #1 – 7, 8b<br>-Finish Piecewise WS<br>- |
| 6 | 2.7 & 1.7 | -Absolute Value Functions Transformations Packet<br>-Solving Absolute Value Inequalities | - Pg 127 #3 – 6, 11,13, 15 – 17<br>-Finish Absolute Value WS Pg 56, # 51-59 NO GRAPHS |
| 7 | | **-Review Day** | **Review WS Due Test Day** |
| 8 | Test Day | | Prereq Sheet for Unit 2 – Quadratic Functions |

## STUDENT SELF EVALUATION:

This is not for a grade, so be honest! Use the scale below to mark your honest evaluation of your understanding and use this to prepare for assessments.

Target Rating Scale: Choose which best fits your understanding

3 –understand and did work correctly

2 – made some mistakes, but understand now

1 – attempted, but don't know why you didn't get in right

| | Chapter 2 Polynomials, Linear Equations, and Functions | | | | |
|---|---|---|---|---|---|
| | Learning Target | Section in Book | *Do I understand this target?* | | |
| | | | HW | DLT | Unit Review |
| 1 | I know the properties of a 1st degree polynomial. | 5.2 | | | |
| 2 | I know what a function is | 2.1 | | | |
| 3 | I know the properties and behavior of a function | 2.1, 2.2 | | | |
| 4 | I understand slope and rate of change | 2.2 | | | |
| 5 | I can write equations of lines given various data | 2.3, 2.4 | | | |
| 6 | I understand correlation | 2.6 | | | |
| 7 | I understand **how to find a best fitting model** for a data set | 2.6 | | | |
| 8 | I understand confidence coefficients and what they mean | 2.6 | | | |

*Dry Erase Board and One Marker

-Each person on writes one topic and passes the board.

-You have 2 minutes!

STUDY GUIDE
Polynomials (5.2)
Functions (2.1)
Slope (2.2)
Writing Equations of Lines (2.4)
Graphing Equations of Lines (2.3)
Correlation/Best fitting Lines (2.6)
Piecewise Functions (2.7E)
Absolute Value Functions (2.7)
Solving Absolute Value Inequalities
Domain, Range (2.1/2.7)  Intercepts (2.3)

2 parts to every test
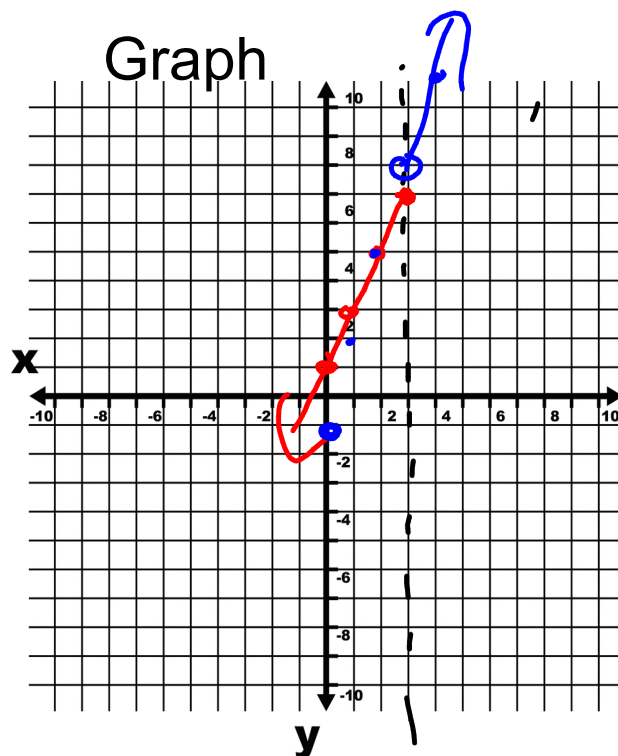CALC
NO CALC

What two questions do you have?


-ask your pod

EX:

If $f(x)=\begin{cases} 2x+1 & if \ x \le 3 \\ 3x-1 & if \ x > 3 \end{cases}$ find:

Graph

$f(4)= 3(4)-1 = 11$

$f(-2)= 2(-2)+1$

$= -3$

## Solving Inequalities Grid

$$\left|\frac{2}{3}x+1\right| > 5 \qquad\qquad |3x+5| \geq 11$$

$$\frac{2}{3}x+1 > 5$$
$$\phantom{\frac{2}{3}x+1}-1 \quad -1$$
$$\frac{2}{3}x > 4 \cdot \frac{3}{2}$$
$$x > 6$$

$$\frac{2}{3}x+1 < -5$$
$$\phantom{\frac{2}{3}x+1}-1 \quad -1$$
$$\frac{2}{3}x < -6 \cdot \frac{3}{2}$$
$$x < -9$$

$$3x+5 \geq 11$$
$$\phantom{3x+5}-5 \quad -5$$
$$\frac{3x}{3} \geq \frac{6}{3}$$
$$x \geq 2$$

$$3x+5 \leq 11$$
$$\phantom{3x+5}-5 \quad -5$$
$$\frac{3x}{3} \leq \frac{-16}{3}$$
$$x \leq \frac{-16}{3}$$

Word Problem Worksheet

*Due next class

# Stations

## AV & Review

https://create.kahoot.it/details/duplicate-of-absolute-value-graphs/02a82fa1-d43f-4a5f-ac6d-287058df5637

## Function or Not

https://create.kahoot.it/#quiz/fd7b5f98-5439-48a4-80c4-f811dd48cdc5

https://create.kahoot.it/#quiz/1507e13a-89bb-48ae-8f0a-86b4b6040bbf

## Order of Operations

https://create.kahoot.it/#quiz/85d2933d-c609-4afb-b675-3d58c259e2aa

## X & Y Intercepts

https://create.kahoot.it/#quiz/1346a77c-a11a-4bf1-9285-573f35f672d1

## Absolute Value Inequalities

https://create.kahoot.it/#quiz/64cf3466-4a09-4df4-92b0-c3a49acf6858

# HW: Review Assignment