Created by Rose Barnes

Warmup 9/$10(58 \div 60) - 0.\overline{6} + (-11.7 + 8 + 3.7) + (\sqrt{5929} - 77)$

1) Find the rule:

Input	Output
Pancake	4
Dinosaur	4
Tree	2
Math	3
Hercules	5

2) Find $58 \div 60$, then multiply it by 10, then subtract $0.\overline{6}$.
3) What is $-11.7 + 8 + 3.7$?
4) What would $\sqrt{5929}$ have to equal in order for this problem to work? (Today is the 9th)
5) Multiply it back out to see if you are correct for #4.

Turn in Week 5 Warmups

City Saver Books…

- You still need to return it even if you don't sell it!

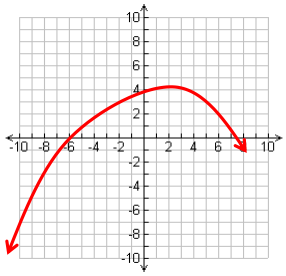
NEW PLAN

- **Finish Key Features Today**
- **Start Review Today**
- **Review Monday**
- **Test Tuesday**

Hold onto the homework, we will finish #5 and #6 and then grade it…

Whiteboard Graphing Sheets!

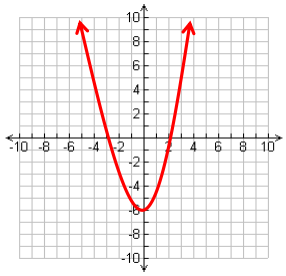
What could be some **important things** about this graph?



Key Features of Graphs

Increasing: Where the y-values go up (from left to right)
Decreasing: Where the y-values go down (from left to right)
X-intercept: Where the graph crosses the x-axis
Y-intercept: Where the graph crosses the y-axis
Slope: How steep the graph is

Key features?



X-intercepts: **-3 and 2**
Y-intercept: **-6**
Increasing/Decreasing?
First decreasing, then increasing

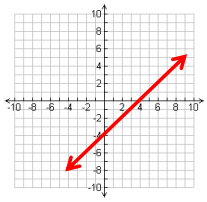
Increasing/Decreasing? **Both increasing**

Which graph has a greater **x-intercept?** **Graph 1**

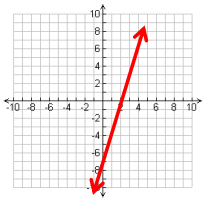
Which graph has a greater **y-intercept?** **Graph 1**

Which graph has a greater **slope?** **Graph 2**

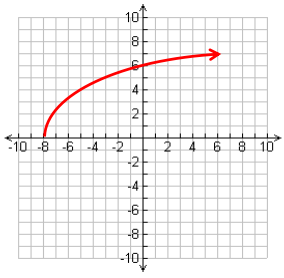
Graph 1



Graph 2



Key features?

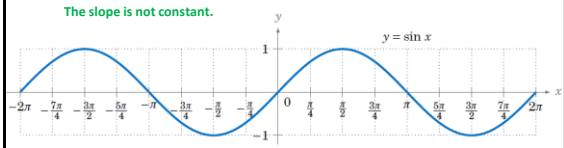


Increasing/decreasing?
Always increasing
X-intercept?
-8
Y-intercept?
6
Describe the **slope.**
The slope is not constant.

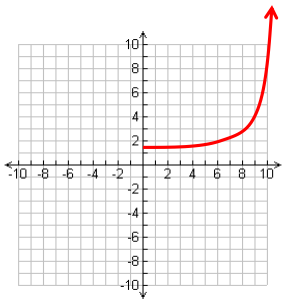
Above and beyond answer: the slope starts out very steep, then gets gradually less steep

Key features?

Increasing/decreasing?
Increasing, then decreasing, then increasing, then decreasing, etc.
X-intercept?
$-2\pi, -\pi, 0, \pi, 2\pi$
Y-intercept?
0
Describe the **slope.**
The slope is not constant.



Key features?



Increasing/decreasing?
Always increasing

X-intercept?
None

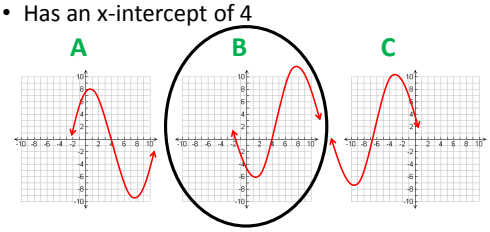
Y-intercept?
About 1.5

Describe the **slope.**

The slope is not constant. It starts not very steep, then gets steeper and steeper.

Choose the graph that is:

- Decreasing, then increasing, then decreasing
- Has an x-intercept of 4



Draw a graph with the following characteristics:

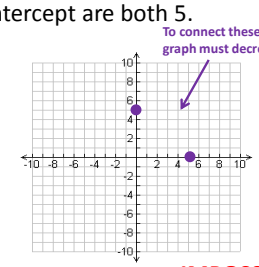
- **x and y-intercepts are <u>both</u> zero**
- **Always decreasing**
- **Slope doesn't change**

Draw a graph with the following characteristics:

- **Always increasing**
- **The slope changes**

IS this possible?

- Draw a graph that is increasing, where the x- and y-intercept are both 5.



IMPOSSIBLE

Which of these are possible?

A) **A graph that is increasing only, which has an x-intercept of -4 and a y-intercept of 6.**

B) **A graph that is increasing, then decreasing, has x-intercepts of 5 and -5, and a y-intercept of -9.**

C) **A graph that is increasing, then decreasing, then increasing again, that has x-intercepts of -8, 2, and 7, and a y-intercept of 4.**

Put Whiteboards back

Classwork

- Finish #5 and #6 on the green sheet
- We will check it in just a few minutes!!!

Go over homework/turn it in

Review: Stations

- Each station is a separate concept from this unit.
- If you finish EARLY and time hasn't run out, please compare answers with other people at your station.
- You may write on them.
- WHISPERING/QUIET TALKING ONLY. If you cannot hear the music, you are too loud.