February 17, 2015

Starter

1.

$1\frac{1}{2}\,ft/\sec = \underline{18}\ in/\sec$

$\dfrac{3\ ft}{2\ \sec} \cdot \dfrac{12\ in}{1\ ft} = \dfrac{36}{2}$

$= 18\ in/sec$

2.

$2.5gal/hr = \underline{10}\ qts/hr$

$\dfrac{2.5\ gal}{hr} \cdot \dfrac{4\ qt}{1\ gal}$

3.

$20\,ft/\sec = \underline{400}\ yd/\min$

$\dfrac{20\ ft}{\sec} \cdot \dfrac{1\ yd}{3\ ft} \cdot \dfrac{\overset{20}{60}\ sec}{1\ min}$

4.

$60mph = \underline{88}\ ft/\sec$

$\dfrac{60\ mi}{hr} \cdot \dfrac{5280\ ft}{1\ mi} \cdot \dfrac{1\ hr}{\underset{60}{3600}\ sec}$

Kleymissky

2/11 Slope - computing and graphing

60 sec Quick Write: What is SLOPE?

Pair-Share: the partner closest to the outside window or the front of the class goes first.

Ideas: hill
ski slope
up / down
shows how fast something is going
on a graph
mountain

changing
straight line on a graph
steep
diagonal

What can you tell about the slopes of these lines?

the steepness of a line

flattest

steepest
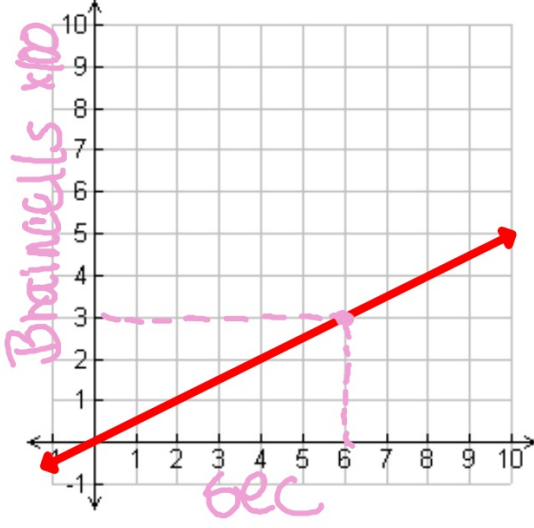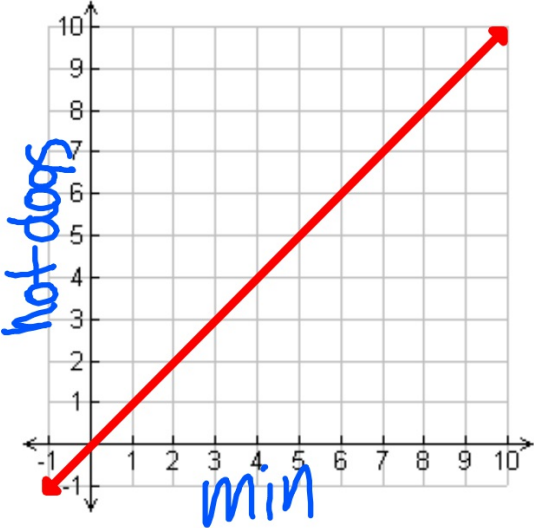
fastest

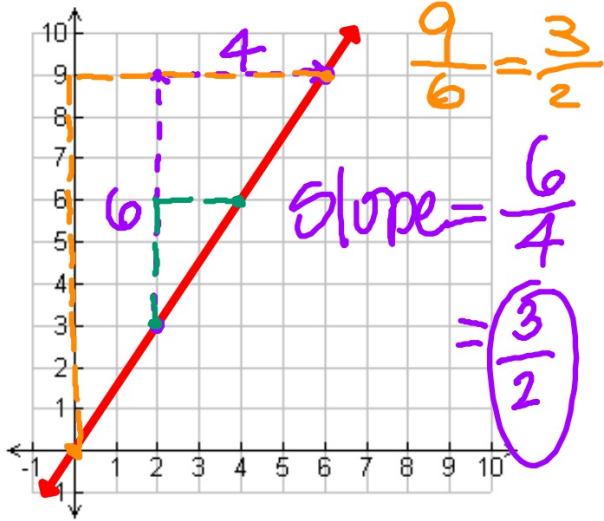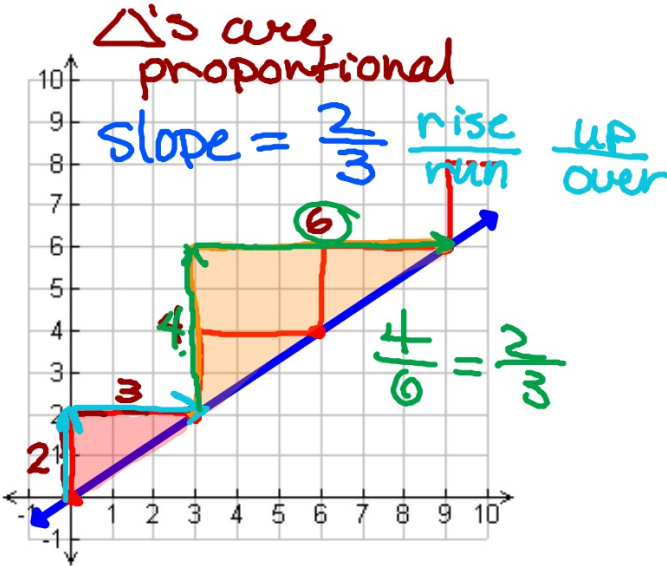cheetah

gazelle horse

pig

tortoise

slowest

What about these slopes?

What rates could they represent?

Slopes are represented by <u>numbers</u>...
numbers that explain the rate.

△'s are proportional

Slope = $\frac{2}{3}$ $\frac{rise}{run}$ $\frac{up}{over}$

6

4.

3

2

$\frac{4}{6} = \frac{2}{3}$
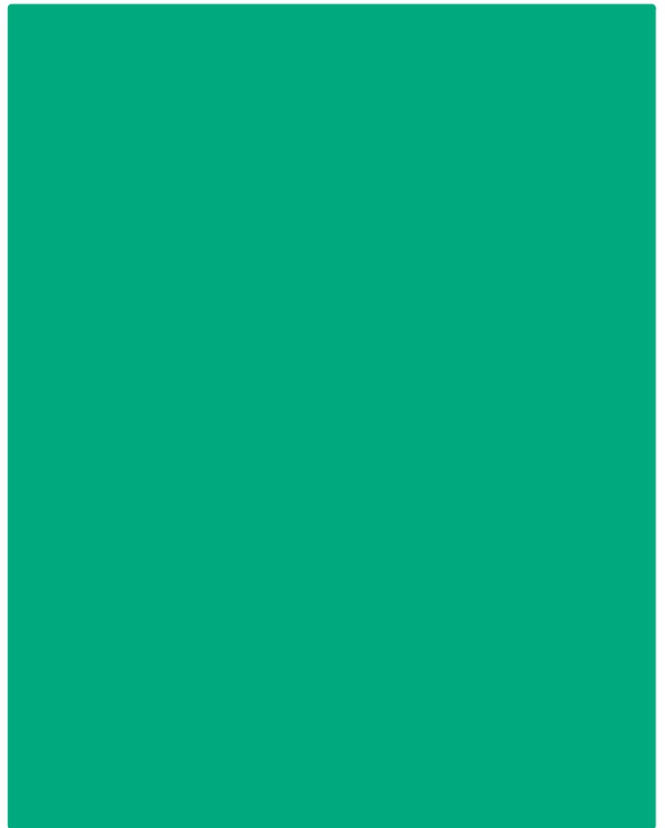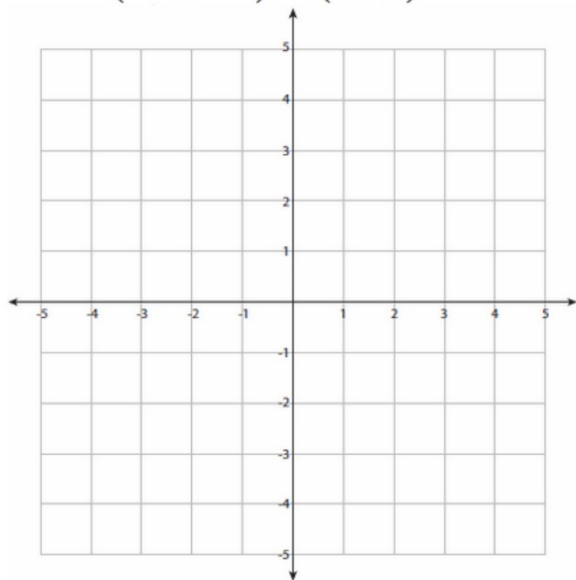
4

6

$\frac{9}{6} = \frac{3}{2}$

Slope = $\frac{6}{4}$

$= \frac{3}{2}$

The line does not need to start at (0,0).
You can still compute the rate (slope) the same way.

Find the slopes of each line:

slope $= \frac{2}{5}$

5

2

slope $= \frac{4}{3}$

3

4

4 up

over 3
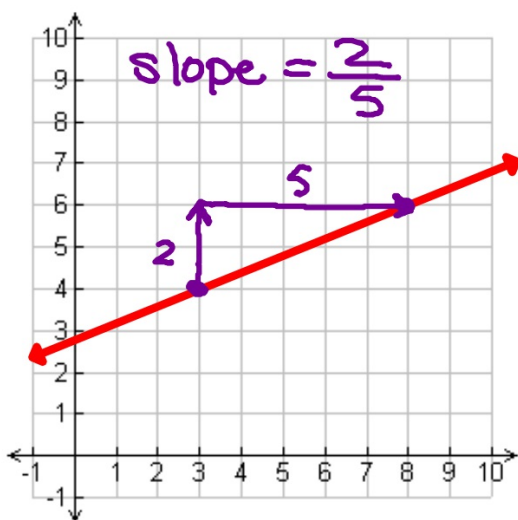
Graph these points, then find the slope of the line that goes through both of them.

$(-1,-2)$ $(3,4)$

Homework

Blue WS 9

Due Friday