Name _____ Period _____

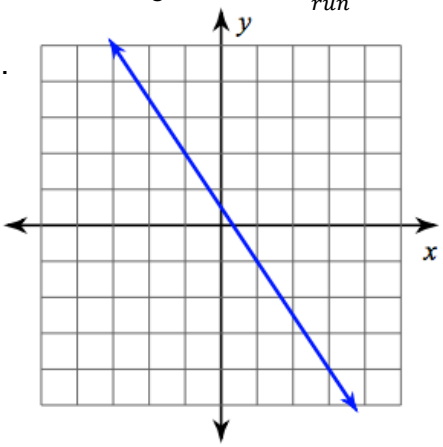
Math 8 – Unit 3 Extra Practice

Original Score

I can find the slope from a graph or a pair of ordered pairs.

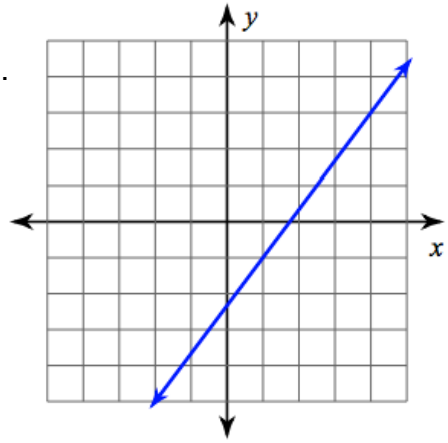
Find the slope from the graphs given below. Be sure to SIMPLIFY! (Remember, draw a triangle and use $\frac{rise}{run}$.

1.



m = _____

2.



m = _____

Find the slope from the set of points given below by using the slope formula: $m = \frac{y_2 - y_1}{x_2 - x_1}$.

3. (-12, -5) and (0, 8)

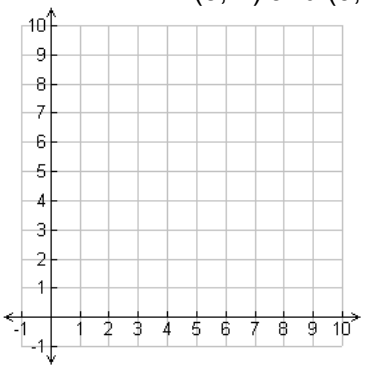
m = _____

4. (1, 5) and (3, -3)

m = _____

5. Graph these points on the line below. Find the slope of the line by using your graph.

(3, 2) and (9, 4)



Slope from graph: _____

6. Prove your slope is correct by using the slope formula.

Slope from formula: _____

Name _____ Period _____

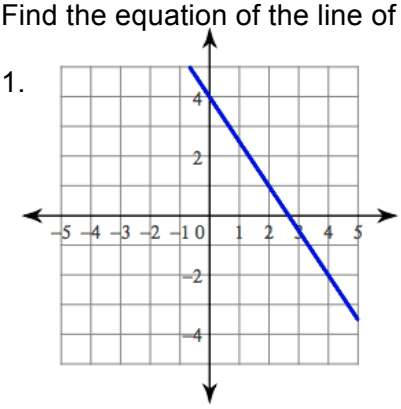
Math 8 – Unit 3 Extra Practice

Original Score

I can write and identify the equation of a line given a graph or by graphing a set of ordered pairs.

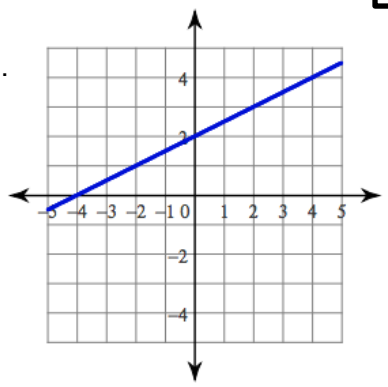
Find the equation of the line of the graphs below:

1.



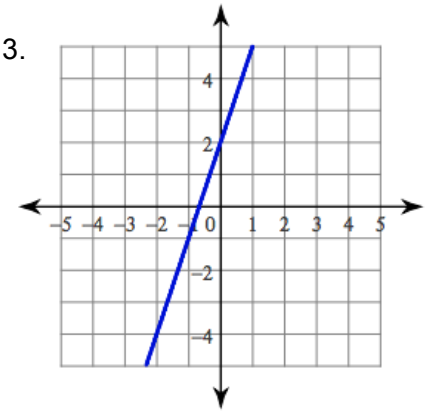
_____

2.



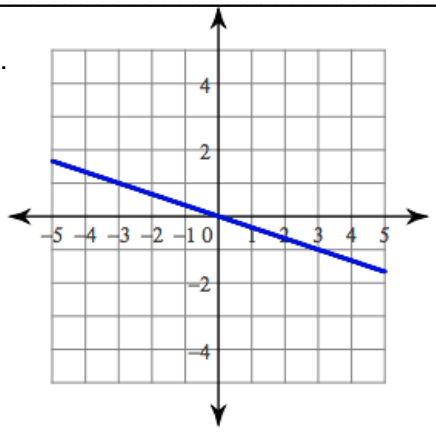
_____

3.



_____

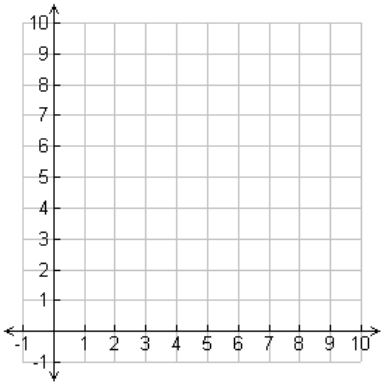
4.



_____

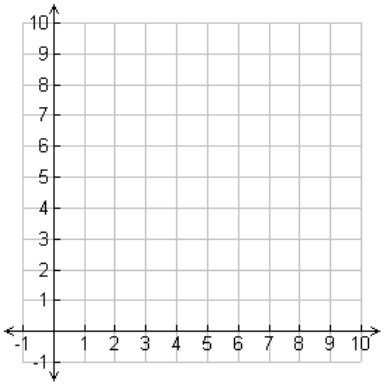
Find the equation of the line that passes through the following set of points.

5. (1, 3) and (3, 7)



_____

6. (2, 6) and (6, 4)



_____

Name _____ Period _____

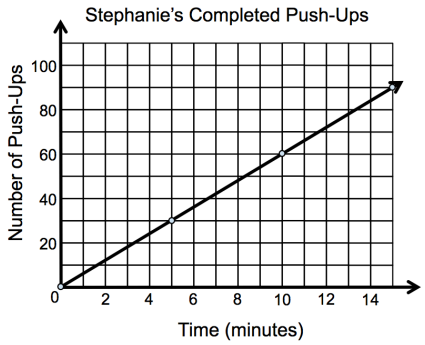
Math 8 – Unit 3 Extra Practice

I can compare and analyze different linear forms.

Original Score

1. Compare the information about the number of push-ups below:

Stephanie:



Paul:

Minutes	Push-Ups
1	7
2	14
3	21
4	28

Autumn:

$P = 8m$

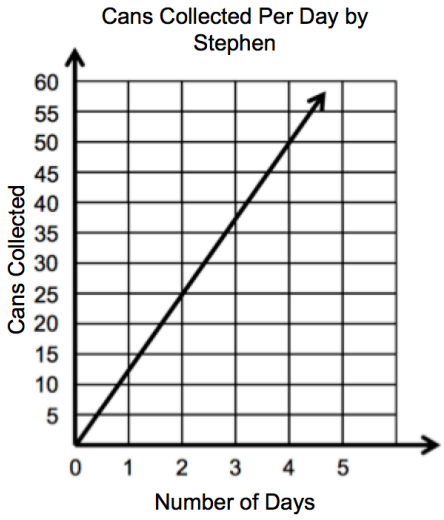
_____ is the student who did the **greatest** amount of push-ups per minute

_____ is the student who did the **least** amount of push-ups per minute

Name _____ Period _____

2. Compare the scenarios to determine which represents a greater collection of cans per day.

Scenario 1:



Scenario 2:

$y = 10x$

x is number of days

y is cans collected

Explain which scenario represents a greater collection of cans per day.

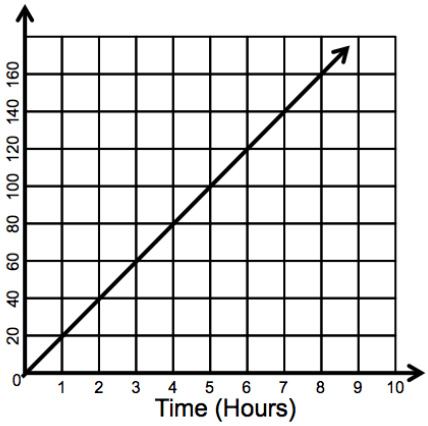
_____

_____

_____

3. Compare the scenarios to determine which represents a greater speed.

Scenario 1:



Scenario 2:

$y = 22x$

x is time in hours

y is distance in miles

Explain which scenario represents a greater speed.

_____

_____

_____

Name _____ Period _____

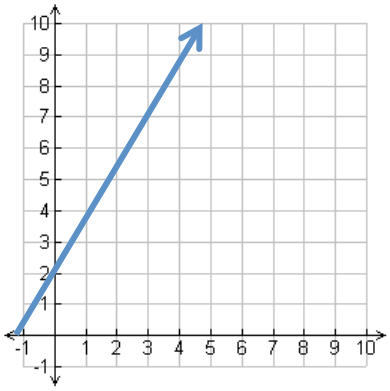
Math 8 – Unit 3 Extra Practice

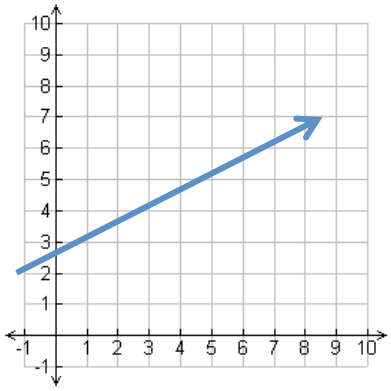
I can identify and analyze proportional relationships using slope triangles.

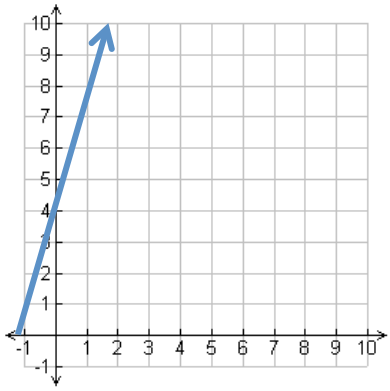
Original Score

1. In order for a relationship to be proportional, the slope must be [constant | not constant] and the starting value must be _____.

2. Determine which of the following graphs, tables, and equations represent proportional relationships. Circle the ones that are proportional.







x	y
0	0
1	3
2	6

x	y
0	5
1	6
2	7

x	y
0	0
1	1
2	5

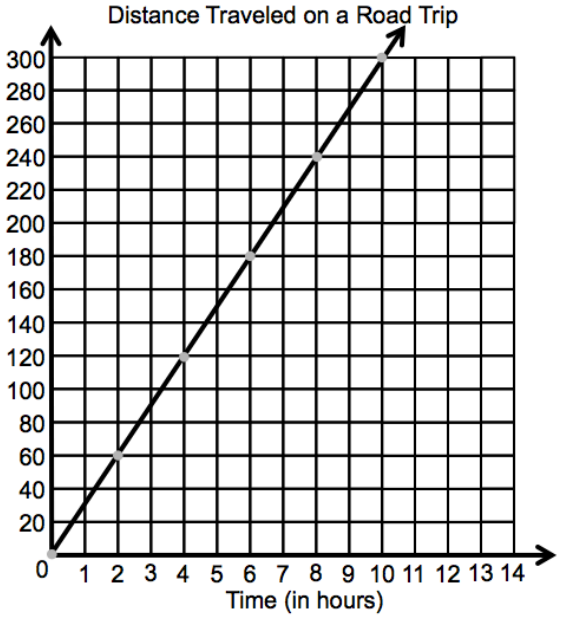
x	y
0	0
1	-4
2	-8

x	y
0	2
1	3
2	5

$y = 13x + 4$ $y = \frac{1}{2}x$ $y = 3x$ $y = 25.2x + 4$ $y = 14x$

Name _____ Period _____

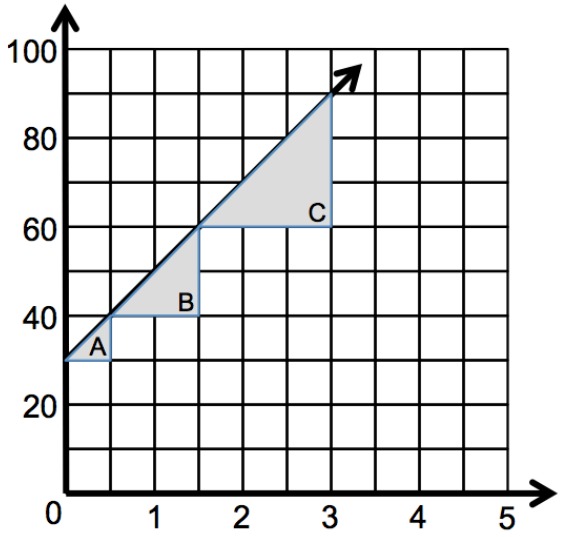
3. On the graph below, draw two slope triangles to find the slope of the given line. Label your triangles A and B and prove that their slopes are the same using equivalent fractions. *Be sure to look at the scale on the graph!*



Slope of A: Point 1 (,) Point 2 (,)

Slope of B: Point 1 (,) Point 2 (,)

4. On the graph below, find the slope of the three triangles and prove that they have the same slope using equivalent fractions. Then, write the equation of the line.



Slope of A: Point 1 (,) Point 2 (,)

Slope of B: Point 1 (,) Point 2 (,)

Slope of C: Point 1 (,) Point 2 (,)

Equation of the Line: _____