

1-31-19

Aim: SWBAT review.

HW: Quiz tomorrow

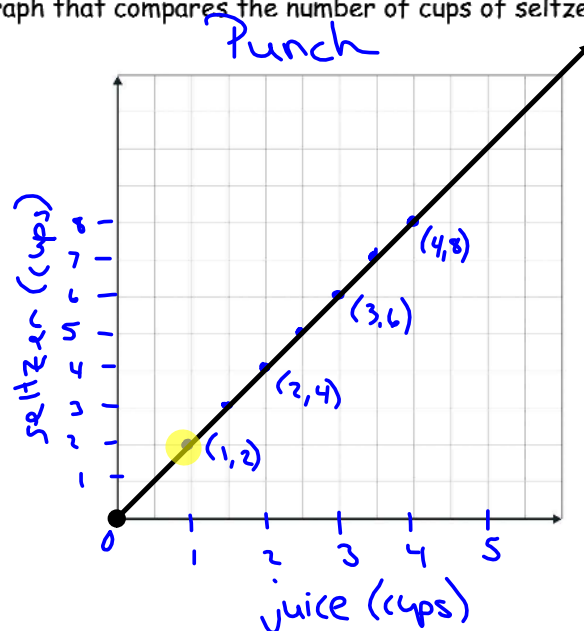
Do Now: Packet Pages 26 - 28

2. Jesse is making punch. For every 3 cups of juice, he needs 6 cups of seltzer. The number of cups of seltzer is proportional to the number of cups of juice. Fill in the table.

Seltzer	2	3	4	5	6	7	8
Juice	1	1.5	2	2.5	3	3.5	4

$$\frac{\text{seltzer}}{\text{juice}} \quad \frac{\text{dep.}}{\text{ind.}}$$

A. Draw a graph that compares the number of cups of seltzer to the number of cups of juice.



B. Write an equation that represents the situation.

$$\text{dependent} = \text{constant of proportionality} \cdot \text{independent}$$

$$\underline{y} = \underline{2} \cdot \underline{x}$$

C. Answer the following questions.

What does the ratio $\frac{2}{1}$ represent?

It's the unit rate.

What does the point (2, 4) represent on the graph?

It represents 2 cups of juice require 4 cups of seltzer to keep the recipe proportional.

Highlight the specific point on the graph that most easily represents the constant of proportionality.

If s represents cups of seltzer and j represents cups of juice, write an equation that represents the proportional relationship.

$$s = 2j$$

Use the equation to find the number of cups of seltzer needed if 15 cups of juice were used.

$$s = 2 \cdot 15$$

$$s = 30$$

$\frac{m}{g}$

3. The equation $m = 32g$ represents the average number of miles, m , that a car can travel on g gallons of gas. What is the constant of proportionality and what does it represent in this situation?

The constant of proportionality is 32. It means that the car travels 32 miles per 1 gallon of gas.

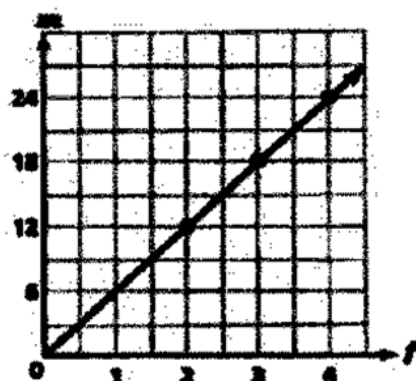
4. Kelsey can buy 2 pounds of apples for \$7. Write an equation to represent the cost, c , for a apples.

$$\frac{\$7}{2 \text{ apples} \div 2} = \frac{\$3.50}{1 \text{ lb apple}}$$

unit rate

$$c = 3.50a$$

- 9) The equation $m = 32 \cdot g$ represents the average number of miles, m , that a car can go on g gallons of gas. What is the constant of proportionality and what does it represent in this situation?
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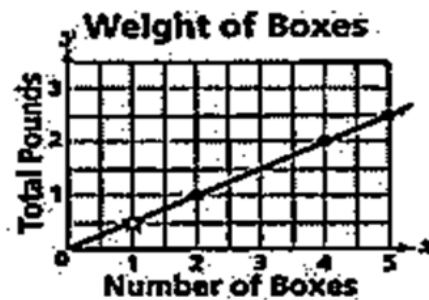
For #1 - 5, Circle the correct answer.

- 1) The graph shows the number of muffins that can be made using various amounts of flour. Which equation shows the relationship between the number of cups of flour, f , and the number of muffins, m ?

- A) $m = 6f$
 B) $f = 6m$
 C) $m = f + 6$
 D) $f = m - 6$

2) Look at the graph. What is the meaning of the point shown with a star?

- A) Half of a box weighs 1 pound.
- B) Each box weighs $\frac{1}{2}$ pound.
- C) Each box weighs 1 pound.
- D) Each box weighs 2 pounds.



3) Ron makes and sells greeting cards. He charges \$5.00 for 2 cards, \$7.50 for 3 cards, \$12.50 for 5 cards and \$20.00 for 8 cards. Which equation shows the relationship between the number of cards, n , and the total cost, c ?

- A) $c = \frac{2}{5}n$
- B) $c = 0.4n$
- C) $c = 2.5n$
- ~~D) $c = 2.5n + 5$~~

4) The equation $r = \frac{3}{4}b$ represents the number of cups of raisins, r , that you need to make b batches of trail mix. Which point is on the graph that represents this proportional relationship?

- A) $(\frac{3}{4}, 1)$
- B) (4, 3)
- C) (3, 4)
- D) $(0, \frac{3}{4})$

$$\frac{3}{4} \rightarrow \frac{y}{x}$$

- 5) The graph shows the total amount of dog food that Sophia's dog Nipper eats. Which statement is NOT correct?

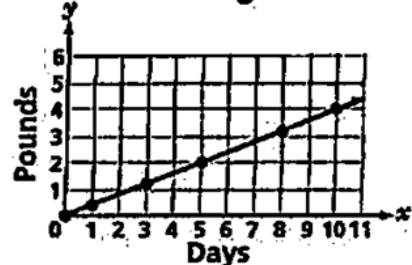
A) The data represents a proportional relationship.

B) The point (5, 2) means that Nipper eats 5 pounds of dog food in 2 days.

C) The point (0,0) has no meaning in this situation.

D) The constant of proportionality is 0.4.

Amount of Dog Food Eaten



- 6) Tom and Jeff studied the data in the table. They each wrote an equation to represent the relationship between the number of students and the number of pizzas ordered.

Tom's equation: $p = \frac{1}{4}s$

Jeff's equation: $s = 4p$

Students (s)	Pizzas (p)
28	7
12	3
32	8
16	4

The teacher said that both equations are correct. Explain why.

They are expressing the same thought, just differently.