

Comparing and Scaling Test Additional Review

Complete these review questions. Answers are in notes section of each slide.

Review Investigation 1 and 2 quizzes/study guides/topics lists

Ask Miss Buckley for more materials if you need them.

Harvest Foods has apples on sale at 12 for \$3.

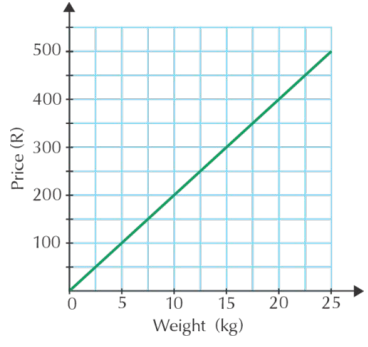
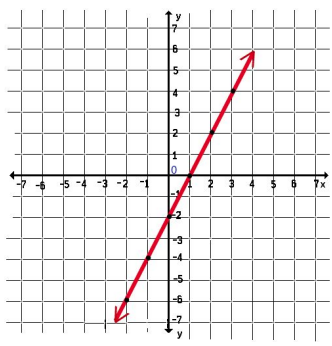
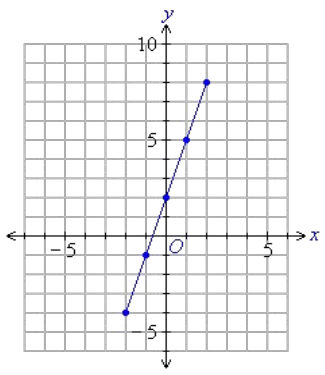
The Cost of Apples

Number of Apples	12	■	1	48	10	■
Cost	\$3	\$1.50	■	■	■	\$4.50

- What is the cost per apple?
- Complete the rate table to show the costs of different numbers of apples.
- How many apples can you buy for \$1?
- Is the relationship between number of apples and cost proportional? Explain.
- Write an equation that relates the cost, C , to the number of apples, n .
- What is the COP?

- \$0.25 per apple
- 6; 0.25; 12; 2.50; 18
- 4
- Yes: constant rate of \$4 per apple, COP = 4, not addition/subtraction
- $C = \frac{1}{4}n$ OR $n = 4C$
- $\frac{1}{4}$ or 4, depending on which equation you wrote

Do each of these graphs represent proportional relationships? (Yes/no)



No, no, yes

State whether each of the following equations represents a proportional relationship. Also, state the unit rate.

a. $T = 29R$ proportional/not proportional unit rate = _____

b. $H = 3.6g + 7.2$ proportional/not proportional unit rate = _____

c. $p = 3.5k - 1$ proportional/not proportional unit rate = _____

d. $\frac{1}{2}x = y$ proportional/not proportional unit rate = _____

- a. Proportional, unit rate (and COP) = 29
- b. Not proportional, unit rate = 3.6 (no COP)
- c. Not proportional, unit rate = 3.5 (no COP)
- d. Proportional, unit rate (and COP) = $\frac{1}{2}$

Complete each rate table.

1		6		
	5	10	15	30

2		18	30		60
	9	27		63	

8	16		40	
	18	27		63

1	3	9		27	
		12	28		80

- 1) $\frac{5}{3}$, 3, 9, 18
- 2) 3, 6, 45, 42, 90
- 3) 9, 24, 45, 56
- 4) $\frac{3}{4}$, 4, 21, 36, 60

A different refrigerator costs \$3,250.
What is the 6.5% **sales tax** on the
refrigerator?

\$211.25

A washing machine costs \$429.99.
What is the ***total price*** of the washing machine including a 6.5% tax?

\$457.94

A refrigerator costs \$1,200.
What is the ***total price*** of the refrigerator
including a 6.5% tax?

\$1,278.00

A bag of Miss Buckley's dog's food is on sale for 15% off. After the discount, it costs \$31.50. What is the original price of the bag of dog food?

\$37.06

A vacuum cleaner is on sale for \$200. If this is a 28% discount, what was the original price of the vacuum cleaner?

\$277.78

Priya bought x grams of flour. Clare bought $\frac{3}{8}$ more than that. Select **all** equations that represent the relationship between the amount of flour that Priya bought, x , and the amount of flour that Clare bought, y .

A. $y = \frac{3}{8}x$

B. $y = \frac{5}{8}x$

C. $y = x + \frac{3}{8}x$

D. $y = x - \frac{3}{8}x$

E. $y = \frac{11}{8}x$

C., E.

In a video game, Clare scored 50% more points than Tyler. If c is the number of points that Clare scored and t is the number of points that Tyler scored, which equations are correct? Select **all** that apply.

A. $c = 1.5t$

B. $c = t + 0.5$

C. $c = t + 0.5t$

D. $c = t + 50$

E. $c = (1 + 0.5)t$

A, C, E

Caitlin can run 3 miles in 27 minutes.
Find both unit rates for this situation.

1 mile in 9 minutes

$\frac{1}{9}$ of a mile in 1 minute

Of the students in Ms. Yadav's class, 16 are wearing running shoes, 10 are wearing boots, and 4 are wearing other kinds of shoes. What ratio of the students are wearing boots to all other kinds of shoes?

$$10:4 = 5:2$$

Shameah is making trail mix. The recipe calls for 1 cup raisins, $\frac{1}{2}$ cup chocolate chips and 2 cups of peanuts. What is the ratio of.... 1. Raisins to chocolate chips? 2. Chocolate chips to peanuts? 3. Raisins to chocolate chips to peanuts?

1) 1:0.5;

2) 0.5:2;

3) 1:0.5:2

Solve this proportion:

$$\frac{4}{x} = \frac{5}{15}$$

$$x = 12$$

Solve this proportion:

$$\frac{3}{x} = \frac{.5}{1.5}$$

$$x = 9$$

Solve this proportion:

$$\frac{72}{16} = \frac{18}{n}$$

N = 4

Myra is making punch for a party. The directions say to mix 3 cups of mix for every 7 cups of water. Myra is making 3 batches of the mix. How many cups of mix and how many cups of water will she need?

9 cups of mix, 21 cups of water

Brain has a paper route. It takes him 50 minutes to deliver papers to his 40 customers. How long will it take him if he adds 20 more customers to his route? (Hint: first find how many customers he will now have.)

75 minutes

Find the unit rate. Label your answer.
Manufacture 2488 parts in 8 hours

311 parts in 1 hour

Jordan swam 100 meters in 60 seconds.
Hakeem swam 150 meters in 80 seconds.
Who swam faster? Explain/ show your work.

Hakeem

The Mike and Ikes machine fills 28 boxes in 6 hours. ABOUT how many box will be filled in 8 hours?

About 37 boxes

The Mike and Ike machine fills 28 boxes in 6 hours. About how many hours will it take to fill 53 boxes?

About 11.5 hours