Math Virtual Learning

Grade 7
Direct Proportion

April 10, 2020

Grade 7/Direct Proportion
Lesson: April 10, 2020

Objective/Learning Target:
Students will identify direct proportions, find the constant of proportionality, and write direct proportions.

Let's Get Started:
Watch Video: Constant of Proportionality

Practice:

Sarah drinks 30 liters of water on weekdays and 12 liters of water on weekends. How many liters of water does Sarah drink per day?

Process: Add 30 + 12 to get the total number of liters per week.
Divide 42 by 7 to get the answer of:

Sarah drinks 6 liters of water per day.

Correct Answer

Practice:
Go to this website:
[Finding Constant of Proportionality from a Graph](#)
1. Watch the video.
[Practice Problems](#)
2. Work practice problems.

Go to this website:
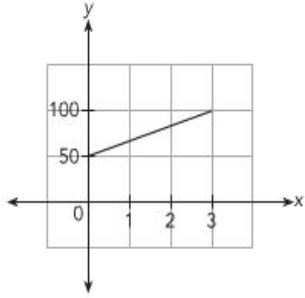[Finding Constant of Proportionality from an Equation](#)
1. Watch the video.
[Practice Problems](#)
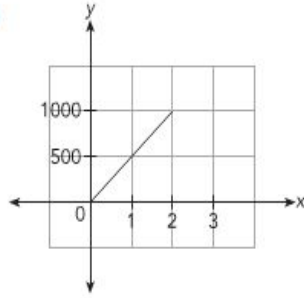2. Work practice problems.

Practice:
Answer the questions on a piece of paper.

Tell whether each graph represents a direct proportion. If so, find the constant of proportionality. Then write a direct proportion equation.
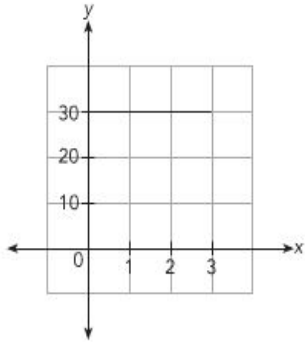
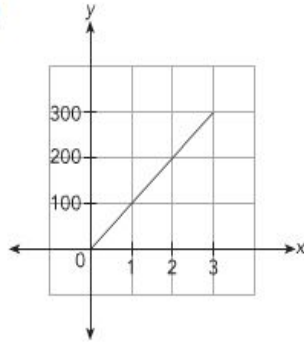**1**

2

3

4

Tell whether each equation represents a direct proportion. If so, identify the constant of proportionality.

5 $3y = \frac{1}{2}x$

6 $2y - 5 = x$
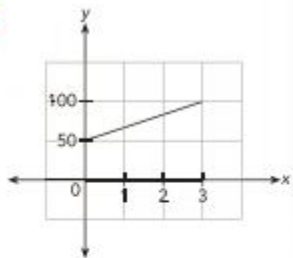
7 $p = 0.25q$

8 $4.5a = b + 12$

9. Belle works at a convenience store. She is paid $432 for 18 hours of work. How much is Belle paid for 21 hours of work?
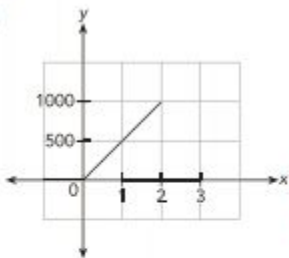
Answer Key:
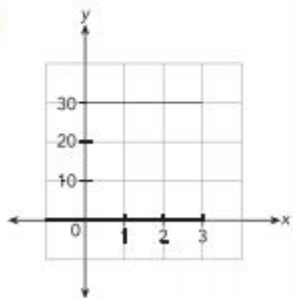## Once you have completed the problems, check your answers here.

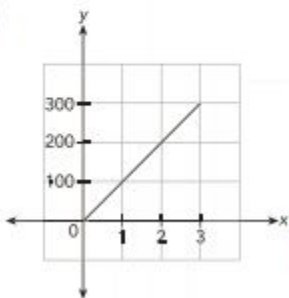**1**

No

2

Yes; 500;
$y = 500x$

3

No

4

Yes; 100;
$y = 100x$

5 $3y = \frac{1}{2}x$ Yes; $\frac{1}{6}$

6 $2y - 5 = x$ No

7 $p = 0.25q$ Yes; 0.25

8 $4.5a = b + 12$ No

9. Belle works at a convenience store. She is paid $432 for 18 hours of work. How much is Belle paid for 21 hours of work?

$$\frac{432 \text{ dollars}}{18 \text{ h}} = \frac{y \text{ dollars}}{21 \text{ h}}$$

$$\frac{432}{18} = \frac{y}{21}$$

$$y \cdot 18 = 21 \cdot 432$$

$$18y = 9{,}072$$

$$\frac{18y}{18} = \frac{9{,}072}{18}$$

$$y = 504$$

or

$432/18 = $24 per hour

$24 X 21 hours = **$504**

Additional Practice:

Click on the links below to get additional practice and to check your understanding!

[Quizizz Graphs](#)

[IXL Graphs and Equations](#)