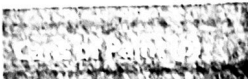



Solve the problems.


1 Micah paints birdhouses to sell at a fair. The table shows the amount of paint he uses. Is this a proportional relationship? If so, find the constant of proportionality and write an equation for the relationship.

| | | | | |
|---|---------------|------|----------------|-----|
|  | $\frac{1}{4}$ | 0.75 | $1\frac{1}{2}$ | 2.5 |
|  | 3 | 9 | 18 | 30 |



Show your work.

Solution: _____

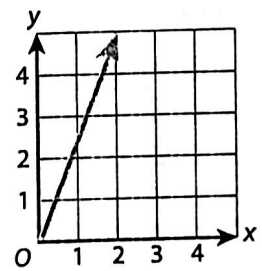
How can you simplify the ratios?




2 Consider the table, equation, and graph. Which of them represents a proportional relationship?

| | | | |
|---|-----|---|-----|
|  | 3 | 5 | 8 |
|  | 3.6 | 6 | 7.2 |

$y = 2x + 5$




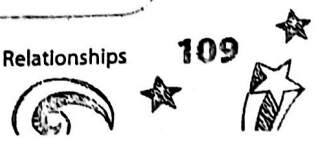
How can you identify a proportional relationship?



3 Cayley says that the equations $p = 1.5q$ and $\frac{2}{3}p = q$ both represent the same proportional relationship. Mariah says that can't be true because the constants of proportionality are different. With which student do you agree? Explain.

How can you identify the equation for a proportional relationship?





Solve.

Jason runs the same distance each day. In one 7-day period he ran $40\frac{1}{4}$ miles. He knows that there is a proportional relationship between n , the number of days, and t , the total distance he runs. Tell whether each statement is *True* or *False*.

- a. The relationship can be expressed as $n = 5.25t$. True False
- b. The graph of the equation is a straight line through $(0, 0)$. True False
- c. The unit rate is 5.75. True False

How can finding the unit rate help you?



A farmer charges \$6 for 4 pounds of tomatoes. Which equation can the farmer use to find how many dollars d he should charge for p pounds of tomatoes?

- A $d = \frac{2}{3}p$ C $d = 1.5p$
- B $d = 6p$ D $d = 4p$

Rosa chose A as her answer. Explain her error.

What is the form of an equation for a proportional relationship?



When Chef Alice makes rice pilaf for 30 people, she uses 15 cups of chicken broth and 10 cups of rice. Dan wants to make the same recipe for 9 people. Write and use equations to find how much broth and how much rice Dan should use.

Show your work.

Finding unit rates could be helpful.



Solution: _____