Name _____ Period _____ Score _____

#49 b

Honors Math 7 - "Graphing Proportional Relationships" HW

If you need to review:
1) Go to www.danielsmath.net
2) Honors Math 7
3) Honors Math 7, Trimester 2
4) Screencast #49b

1. Select **all** tables that represent a proportional relationship between x and y.

x	0	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$
y	0	10	20	30

x	0	$\frac{2}{7}$	$\frac{4}{7}$	$\frac{6}{7}$
y	0	1	7	14

x	0	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$
y	0	1	2	3

2. This diagram shows how much sugar is mixed with water in a hummingbird food recipe. Enter the number of cups of water used for 1 cup of sugar.

Sugar: $\frac{3}{4}$ cup

Water: 1 cup | 1 cup | 1 cup

3. This table shows a proportional relationship between x and y. Find an equation in the form $y = kx$.

x	y
5	$\frac{5}{3}$
7.5	$\frac{5}{2}$
8	$\frac{8}{3}$
12	4

Name _____ Period _____ Score _____

4. Three bags of flour and two bags of sugar weigh 32 pounds. Four bags of flour weigh 32 pounds. All bags of flour weigh the same and all bags of sugar weigh the same. **What is the ratio of the weight of a bag of flour to a bag of sugar?**

5. The profit of a hot dog vendor earned in dollars, is proportional to the number of hot dogs sold. This equation represents the proportional relationship between the profit earned (***p***) and the hot dogs (***h***) sold.

$$p = 2h$$

Find the profit, in dollars, earned for each hot dog sold.

6. One way of checking to see if a relationship is proportional is to compare the ratios of $\frac{\text{output}}{\text{input}}$. If all the ratios are equivalent, the relationship is proportional. Will comparing the ratios of $\frac{\text{input}}{\text{output}}$ tell you the same thing? Explain in full detail.

Are each of the following equations of proportional relationships or not. Explain either way. If the equation is proportional, what is the constant of proportionality?

7. $y = 8x - 1$

8. $y = \frac{5}{9}x$

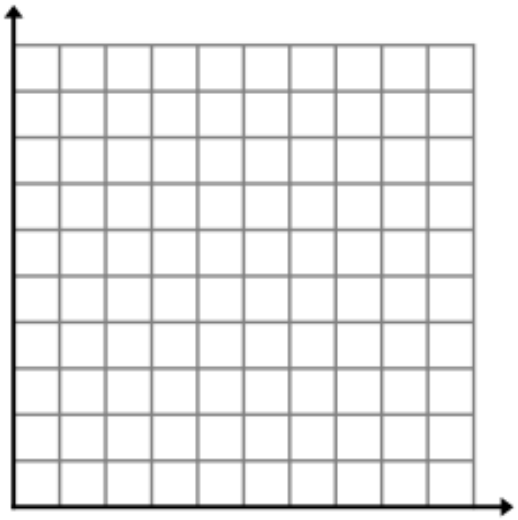
9. $c = 19w$

10. $t = \frac{1}{2}g + 0.1$

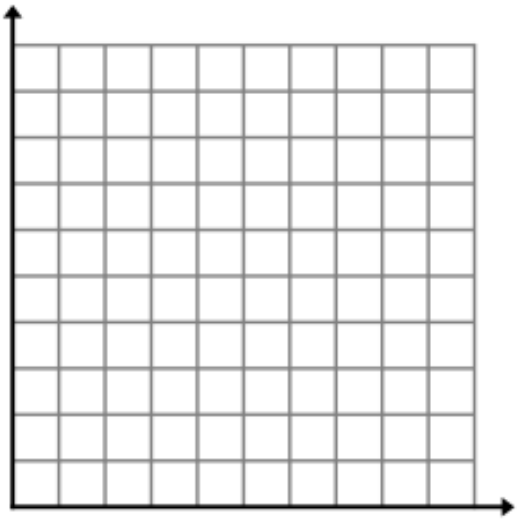
Name _____ Period _____ Score _____

Graph each of the following proportional relationships (be sure to include a table of values).

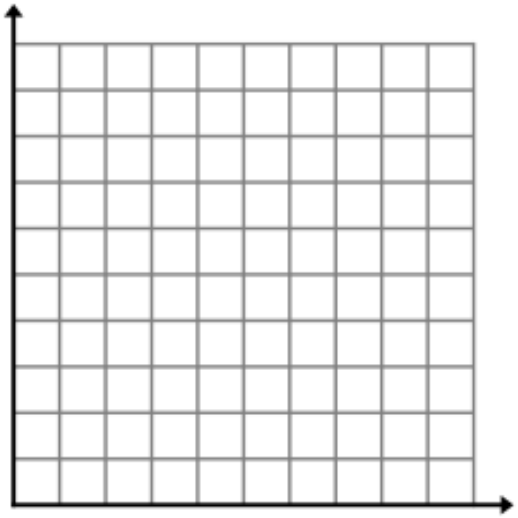
11. $y = 4x$



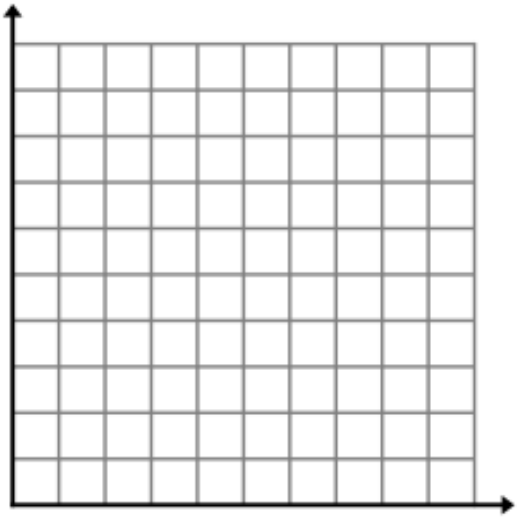
12. $y = \frac{3}{5}x$



13. $h = \frac{4}{3}g$

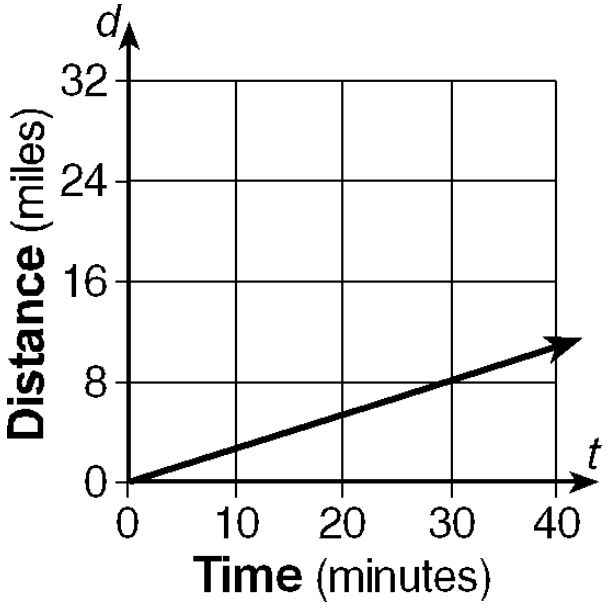


14. $k = 7n$

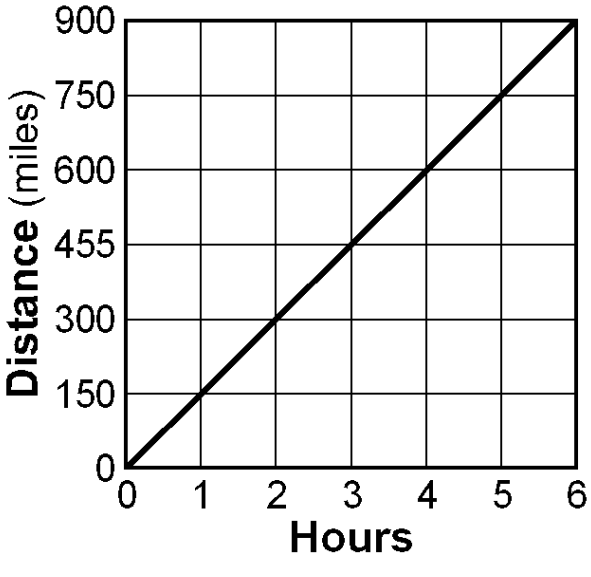


Find the proportional relationship equation for each of the following graphs. Also, state the unit rate.

15.

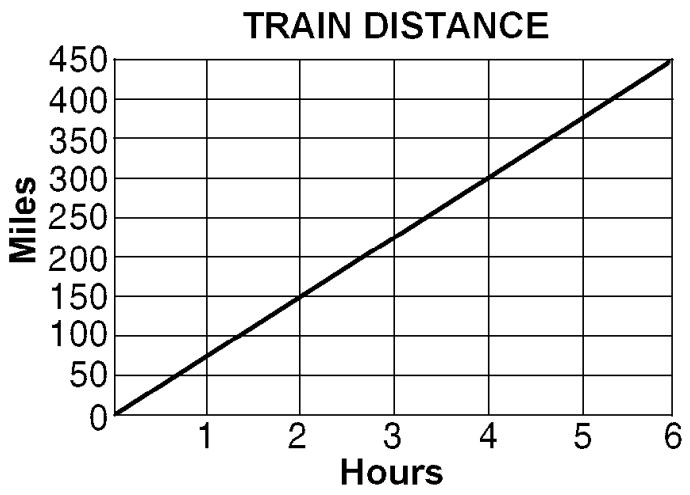


16.

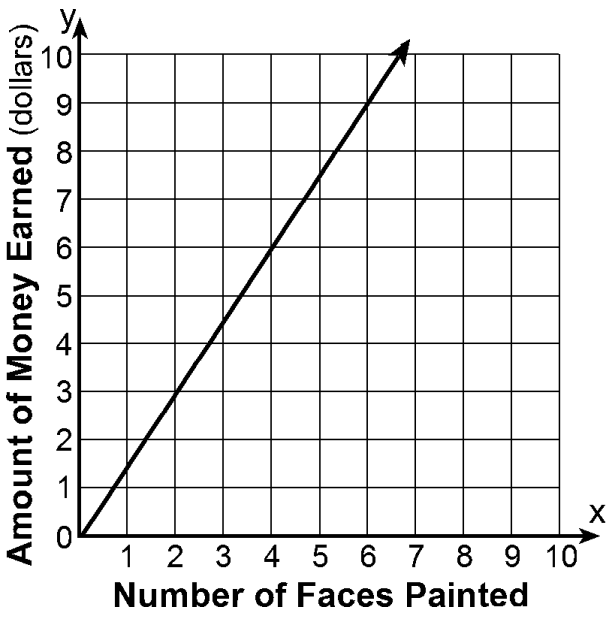


Name _____ Period _____ Score _____

17.



18.



State the constant of proportionality, the unit rate, and the equation in BOTH directions.

19.

Miles	**5**	**12**	**18**	**14**	**7**
Hour	$\frac{1}{2}$	$1\frac{1}{5}$	$1\frac{4}{5}$	$1\frac{2}{5}$	$\frac{7}{10}$

20. A tortoise can walk $1\frac{1}{2}$ a mile in $\frac{5}{6}$ of an hour.

21. Michael loves crackers and buys some whenever possible. Recently, Michael bought 4 pounds of crackers for $32. At that same rate how much would 9 pounds cost?

22. Solve for the variable:

$$\frac{3}{4} = \frac{g}{10}$$

23. Jack bought 8 pounds of lunch meat for $90.00. Write an equation that represents the cost "C" per pound "P".