Chapter 5 Take Home Test

Proportions

Chapter 5 Test
Name_____
Class _____

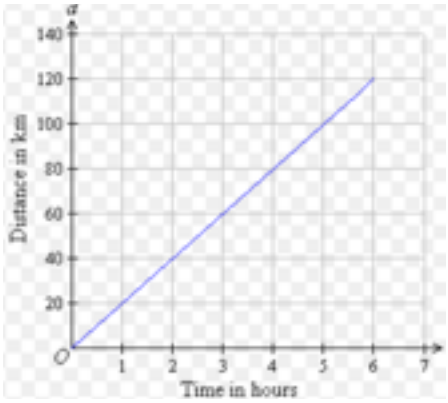
Ms. Angie
Date_____

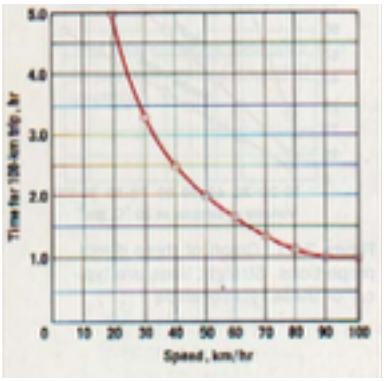
Tell whether each table, graph, or equation represents a direct proportion, an inverse proportion, or neither.

1.)

X	2	4	6
Y	20	40	50

2.)





4.) XY= K

Using direct proportions and cross products solve the following questions.

5.) 9 markers cost $11.50 how much would 7 markers cost?

6.) 7 peaches cost $5. How many peaches can I buy with $13?

7.) A fruit salad recipe for five people requires two bananas. How many bananas do we need for the fruit salad to feed 15 people?

In each table, *y* is directly proportional to *x*. Find the constant of proportionality. Then copy and complete the table

8.)

X	2	4	?
Y	?	16	25

9.)

X	3	5	?
Y	?	2.5	3

In the table, *y* is inversely proportional to *x*. Find the constant of proportionality. Then copy and complete the table.

10.)

X	1	2	3
Y	120	?	40

Find the constant of proportionality. Then write an equation relating *x* and *y*.

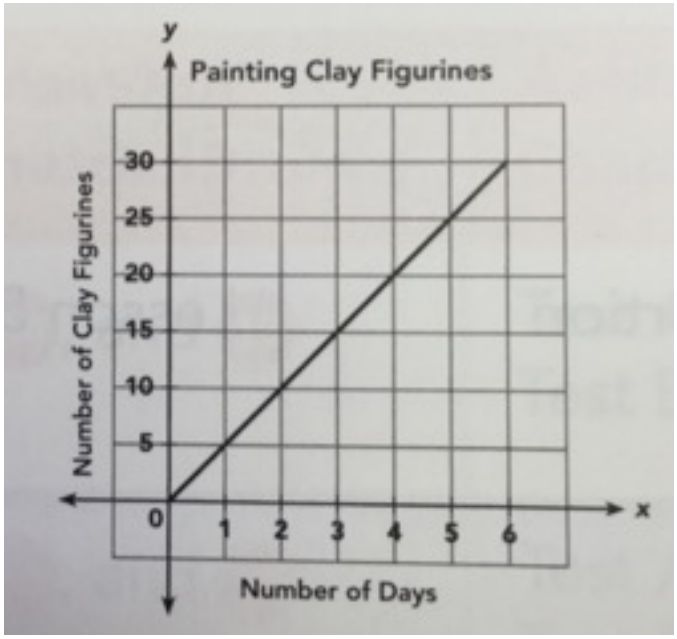
11.) y is directly proportional to x, and $y = 35$ when $x = 7$

12.) y is directly proportional to x, and $y = 216$ when $x = 2$

a) Find y when $x = 7$

b) Find x when $y = 560$

13.) Jane paints clay figurines to sell at a crafts fair. The graph shows that the number of figurines she paints, y, is directly proportional to the number of days she paints, x.



a.) Find the constant of proportionality

b.) What does the constant of proportionality represent in this situation?

c.) How long will it take Jane to paint 30 figurines?

14.) The table shows the daily houseboat rental rate, in P dollars, for x number of people.

Number of People (x)	1	2	3
Rental Rate (P dollars per person)	240	120	80

a) Describe the relationship between the number of people and the daily houseboat rental rate?

b) Write an equation rating x and P

c) What is the rental rate, in dollars per person, if 6 people plan to rent the houseboat?

15) The time taken to cycle a particular distance varies inversely with the speed of the bicycle. Tim takes 3 hours to reach his destination traveling at a constant speed of 12 miles per hour.

a) Find the constant of proportionality.

b) What does the constant of proportionality represent in the context of the problem?

c) Write an equation relating speed and time.

d) How long would it take Tim to reach his destination if he travels at a constant speed of 15 miles per hour