

**4.3c Homework: Convert Units—Proportion in Tables and Graphs**

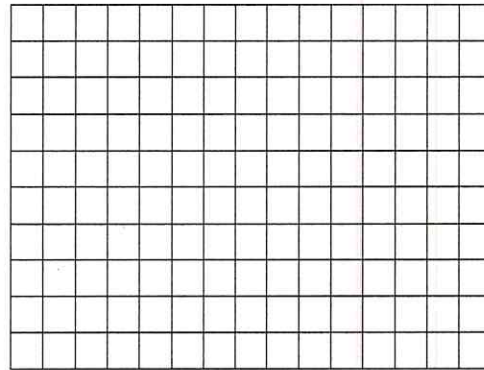
**A. Minutes related to Hours**

Fill in the missing data.

Hours ( $x$ )	1	2	3	5	10		15		$x$
Minutes ( $y$ )				300		720		1200	
Ratio $\frac{y}{x}$									

1. What is the unit rate? How do you know?
2. What did you do to find the number of minutes in a given number of hours?
3. Write an equation to find the number of minutes in a given number of hours.
4. Predict the movement between points on a graph. Explain--use words like up, down, right, left, vertical, horizontal.

Sketch the graph, including labeling the axes.



**B. Hours related to Minutes:** (use the table in #A above --the ratio would be reversed)

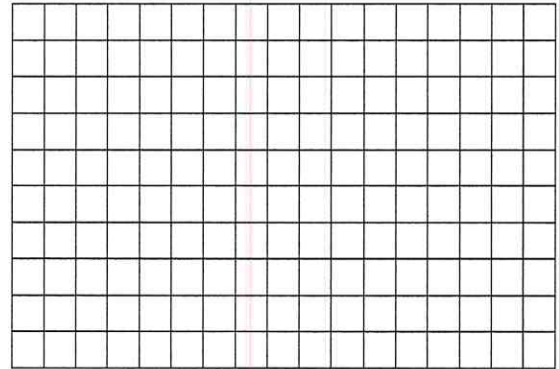
6. What is the unit rate? How do you know?
7. What did you do to find the number of hours in a given number of minutes?  
Write an equation to find the number of hours in a given number of minutes.
8. Predict the movement between points on a graph. Explain--use words like up, down, right, left, vertical, horizontal.
9. How will the graph be different than the graph in #A above?

**C. Kilometers related to miles:** (1 mile  $\approx$  1.6 kilometers)

Fill in the missing data.

Miles ( $x$ )	1	2		4	5	10		25		100	$x$
Kilometers ( $y$ )			4.8		8		19.2		80		
Ratio $\frac{y}{x}$											

10. What is the unit rate? How do you know?
11. How could you find the unit rate if the kilometers to miles equation wasn't given?
12. What did you do to find the number of kilometers in a given number of miles?  
Write an equation to find the number of kilometers in a given number of miles.
13. Predict the movement between points on a graph. Explain--use words like up, down, right, left, vertical, horizontal.
14. Sketch the graph, including labels for the axes.

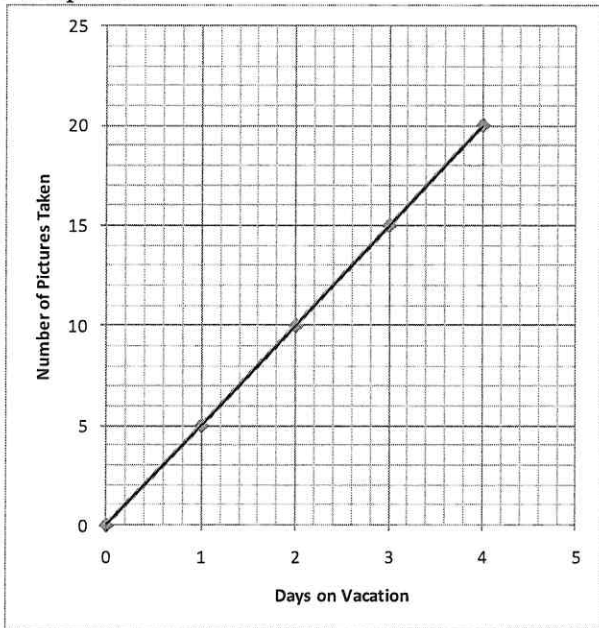


**D. Miles related to Kilometers:** (1 kilometer  $\approx$  0.62 mile) (Use the data in #C above—the ratio would be reversed)

12. What is the unit rate? How do you know?
13. How could you find the unit rate if the miles to kilometers equation wasn't given?
14. What would you do to find the number of miles in a given number of kilometers?  
Write an equation to find the number of miles in a given number of kilometers.
15. Predict the movement between points on a graph. Explain--use words like up, down, right, left, vertical, horizontal.
16. How will this graph be different from the graph in #C above?

### 4.3b Homework: Writing Equations from Graphs

1. Graph C:



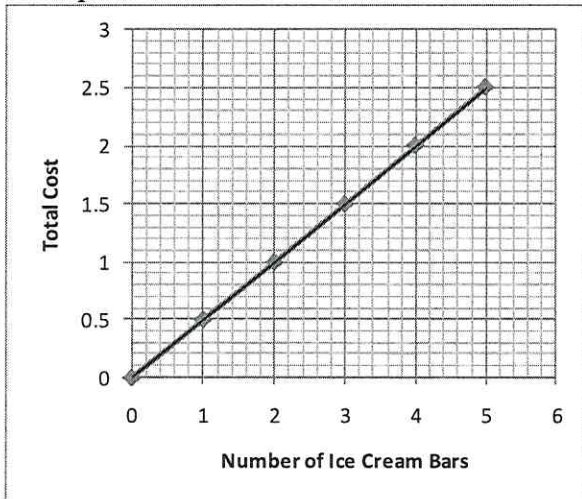

a. Is this a proportional graph? Why or why not?

b. Fill in the table above for the graph

c. What is the unit rate (include labels)?

d. Write the equation relating number of pictures taken to days on vacation.

2. Graph D:



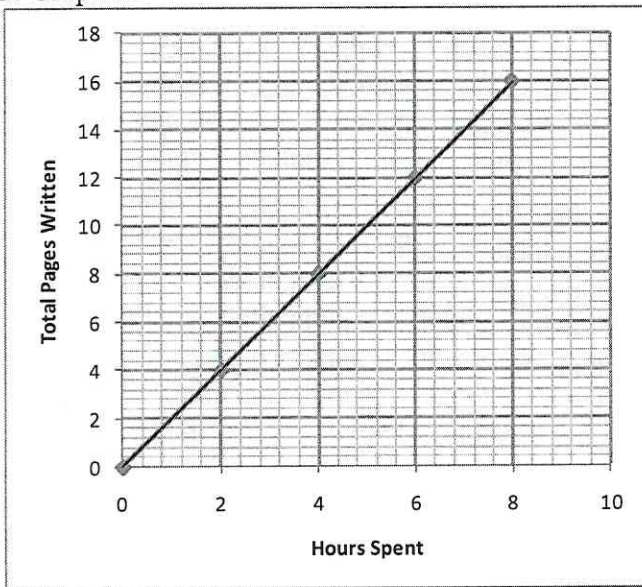

a. Is this a proportional graph? Why or why not?

b. Fill in the table for the graph

c. What is the unit rate (include labels)?

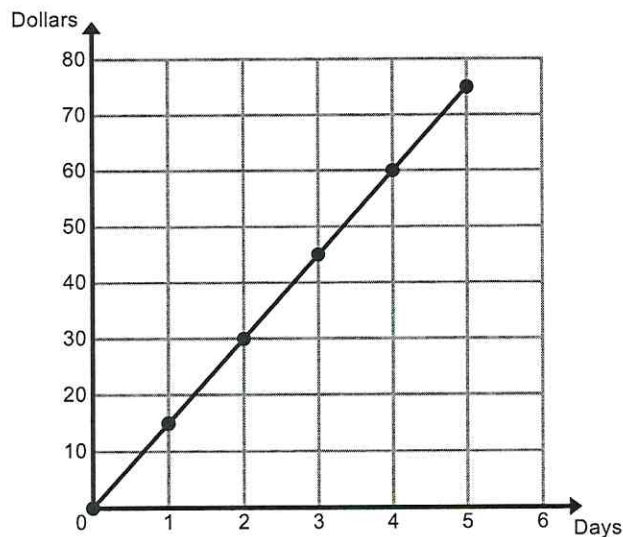
d. Write the equation relating cost to number of ice cream bars purchased.

3. Graph E:




- Is this a proportional graph? Why or why not?
- Fill in the table for the graph.
- What is the unit rate (include labels)?
- Write the equation relating pages written to hours spent.

4. Graph F:




- Is this a proportional graph? Why or why not?
- Fill in the table for the graph:
- What is the unit rate (include labels)?
- Write the equation relating dollars (spent or earned) to days.