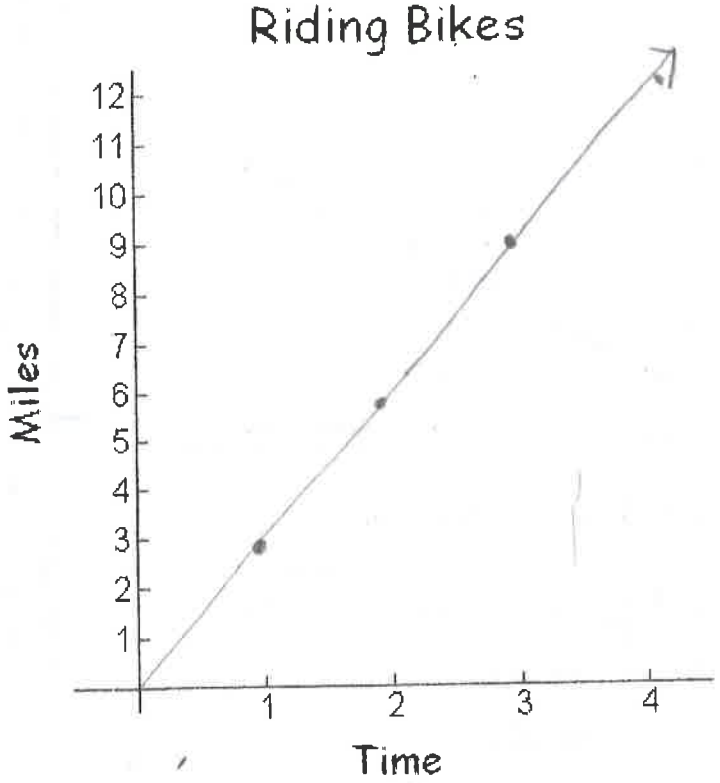
HOMEWORK for ML #8.4

Name Key

Grandma Betty rode her bike on the Tobacco Trail. It took her 4 hours to ride 12 miles. Assume she rode at a constant rate of speed during her exercise.

Time (x)	Miles(y)
4	12
1	3
2	6
3	9
5	15



You move up ____ units for each 1 unit you move to the right.
You move up 2• ____ units for each 2 units you move to the right.
You move up 3• ____ units for each 3 units you move to the right.
You move up 4• ____ units for each 4 units you move to the right.

Starting from (0, 0), to get to a point (x, y) on the graph, you will go up x• ____ units for every x units you have moved to the right.

Therefore, y = x• ____, so y = 3x

What is the ordered pair where x = 1? (1, 3)
What does it stand for? constant of prop, unit rate, 1 hour for 3 miles

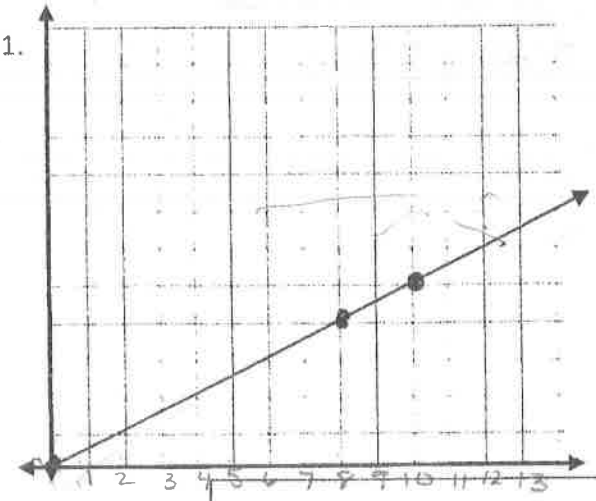
Grandma Betty doesn't always ride 12 miles, but she always goes the same pace. Use your equation to find the missing information based on the given information of different exercise sessions. y = 3x x = time y = miles

A. Grandma Betty rode for 6 hours and 30 minutes. How far did she go?
y = 3(6.5) = 19.5 miles

B. Grandma Betty rode her bike for 15.75 miles. How long did it take her? Can you convert your answer to hours and minutes? 15.75 = 3x
5.25 = x hours

- For each graph below: 1.) Choose 3 points and put them in the table. 2.) Determine if the graph represents a proportional relationship. Support your answer by referring to the graph and table. 3) If the graph represents a proportional relationship, state the unit rate then write the equation of the line.

1.



x	y
0	0
8	4
10	5

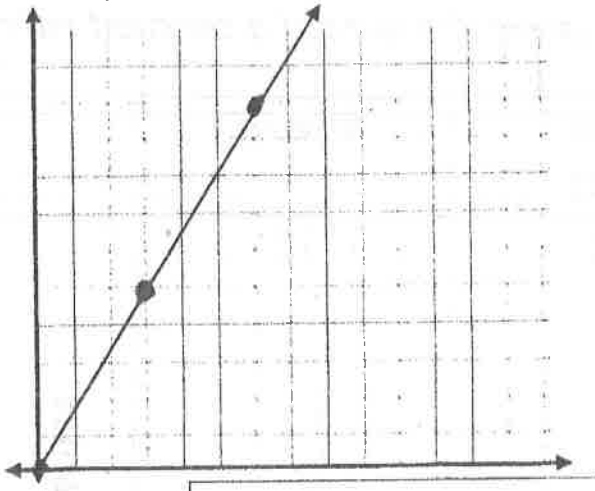
$\frac{4}{8} = \frac{1}{2}$

Proportional? Yes
graph - straight line + goes thru (0,0)

Unit rate: 1/2

Equation: $y = \frac{1}{2}x$

2.



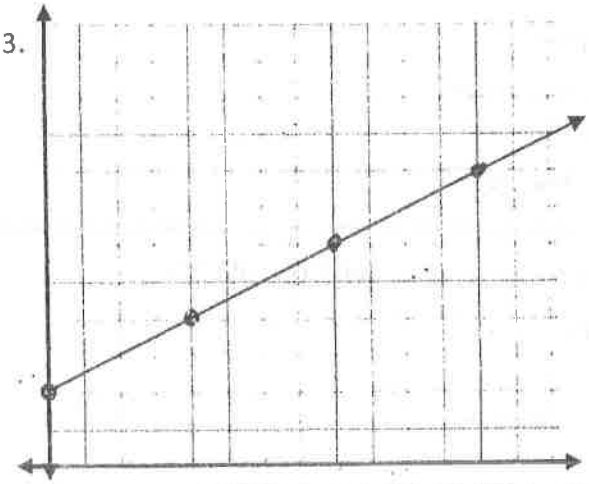
x	y
0	0
3	5
6	10

Proportional? Yes
straight line + goes thru 0,0

Unit rate: 5/3

Equation: $y = \frac{5}{3}x$

3.



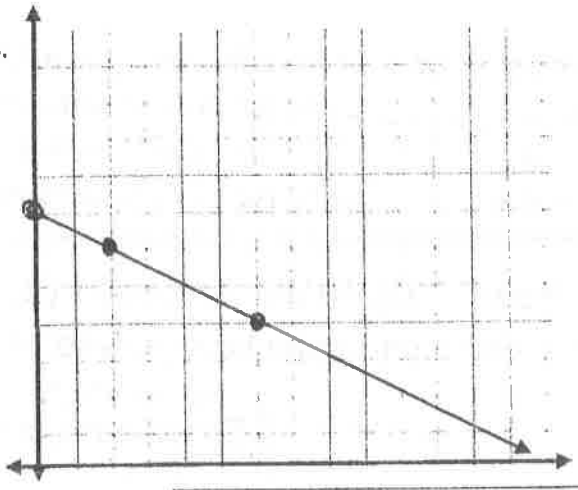
x	y
0	2
4	4
8	6

Proportional? No
does not go thru (0,0), but is straight line

Unit rate: NA

Equation: NA

4.



x	y
0	7
2	6
6	4

Proportional? No
straight line, but does not go thru (0,0)

Unit rate: NA

Equation: NA