

Name _____

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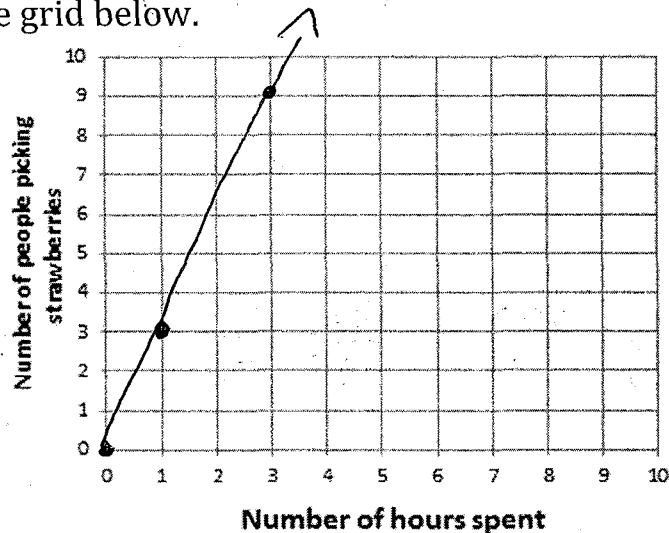
Mr. Tallman

Homework #30 - Proportional Graphs, Tables and Equations

1) The table below shows the number of people picking strawberries in a field and the number of strawberries they picked.

Part A) Graph the relationship on the grid below.

Number of hours spent	Number of people picking strawberries
1	3
3	9
4	12



Part B) Is the relationship proportional? Why or why not?

Proportional. The line is straight & starts at the origin.

Part C) If proportional, determine the constant of proportionality. Show all work.

$$\frac{y}{x} = \frac{3}{1} = 3$$

Part D) What does the unit rate mean in the context of the situation?

Three people pick strawberries each hour.

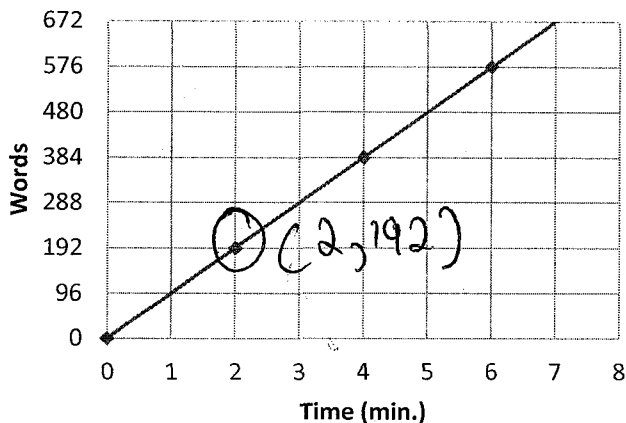
Part E) Write the equation of the relationship shown above.

$$y = 3x$$

Part F) Using your equation from part D, determine the number of hours you would need to pick strawberries in order to pick 21 strawberries. Show all work.

$$y = 3x$$
$$\frac{21}{3} = \frac{3x}{3}$$
$$x = 7 \text{ hours}$$

Example 6) The rate at which Richard types (words per minute) is represented by the graph below.



Part A) What is Richard's typing speed in words per minute? Show all work.

$$\frac{y}{x} \quad (2, 192) \quad \frac{192}{2} = \frac{96}{1} \quad (96 \text{ words per minute})$$

The rate at which Nicole types is represented by the table below.

Time (min.) (x)	2	4	6	8
Words (y)	168	336	504	672

Part B) What is the constant of proportionality in the table above?

$$\frac{y}{x} \quad \frac{168}{2} = \frac{84}{1}$$

Part C) Write an equation that represents the rate at which Nicole types.

$$y = 84x$$

Part D) Who types faster? Why?

Richard because he types 12 words per minute faster than Nicole.