

NAME:

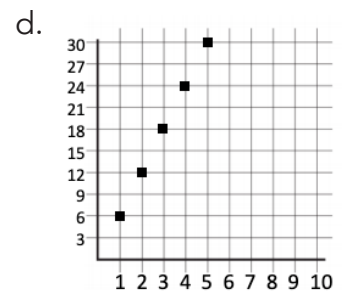
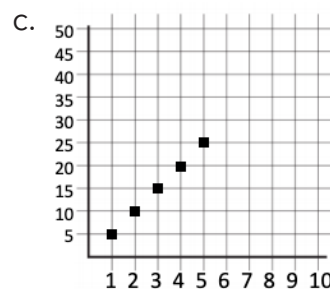
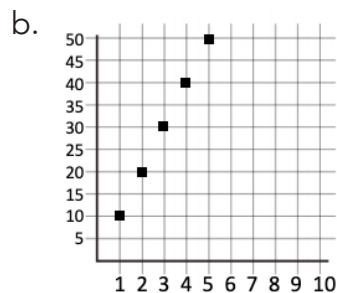
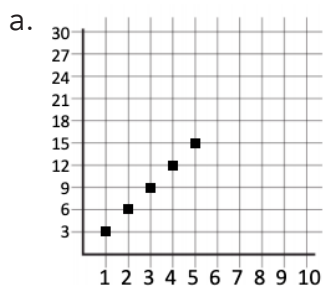
CLASS PERIOD:

SECTION 1

1. Max is interested in reducing the amount of water is used by his family. The table below shows how many gallons of water are used for every minute of a shower.

WATER (gal)	TIME (min)
12	4
6	2
3	1
15	5
9	3

2. Which graph shows the relationship between the numbers of minutes in the shower and the amount of gallons used? *Circle only one.*



e. I don't know

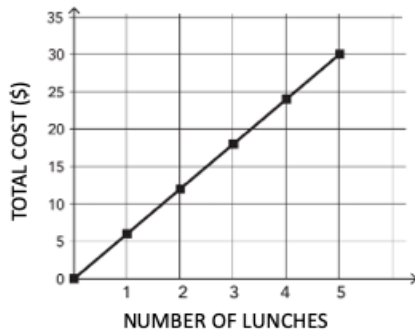
3. What is the unit rate of the graph you selected above? In other words, how many gallons per minute are used? If you don't know, write "I don't know."

4. Write an equation that represents the amount of water,  $w$ , that Max uses in  $m$  minutes. If you don't know, write "I don't know."

## SECTION 2

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Total cost by number of lunches sold:



5. Based on the graph, how much do 6 lunches cost? *Mark only one.*

- \$30
- \$35
- \$36
- \$40
- I don't know

## SECTION 3

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Morgan's savings by week:



6. Based on the graph, how much will Morgan save in 7 weeks? *Mark only one.*

- \$12
- \$70
- \$84
- \$96
- I don't know

## SECTION 4

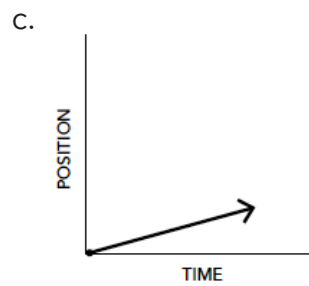
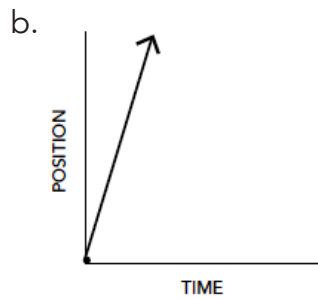
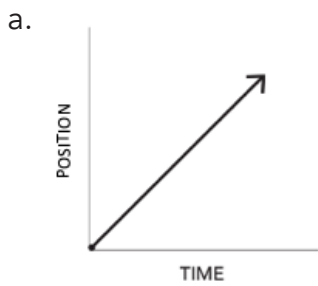
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7. What makes a relationship proportional? Give a definition. If you don't know, write "I don't know."

## SECTION 5

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8. Imagine the graphs represent the speed of a car. If the units and scale are all the same on all the graphs, which car is going the slowest? *Circle only one.*



- d. You need more information to tell which car is going the slowest.
- e. They are all going the same speed.
- f. I don't know.

9. Explain why you selected that answer.

## SECTION 6

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Given the equation,  $y = 2x + 4$ , answer the following questions. If you don't know, write "I don't know."

10. If  $x=0$ , what does  $y$  equal?

11. If  $x=1$ , what does  $y$  equal?

12. If  $x=2$ , what does  $y$  equal?

13. If  $x = -2$ , what does  $y$  equal?

## SECTION 7

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14. In order to enter the arcade, there is an admission cost. In addition, each game costs \$2. Kendall went to the arcade and paid for admission and 5 games, and she spent \$13 total. How much is the admission cost alone? *Mark only one.*

- \$2.00
- \$3.00
- \$10.00
- \$13.00
- I don't know

15. Write an equation that represents the total cost ( $y$ ) to play  $x$  number of games and admission. If you don't know, write "I don't know."

## SECTION 8

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16. For each response, circle TRUE or FALSE. If you don't know, circle "IDK"

$y=4x+6$ is a linear function.	TRUE	FALSE	IDK
The slope of the equation $y=3x+6$ is 6.	TRUE	FALSE	IDK
A linear function has a constant rate of change.	TRUE	FALSE	IDK
For a function to be proportional, it must pass through the point (0, 0)	TRUE	FALSE	IDK

## SECTION 9

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17. Give a real life example of a linear relationship. Explain why it is a linear relationship. If you don't know, write "I don't know."

18. Give a real life example of a non-linear relationship. Explain why it is a non-linear relationship. If you don't know, write "I don't know."