

NAME _____

DATE _____

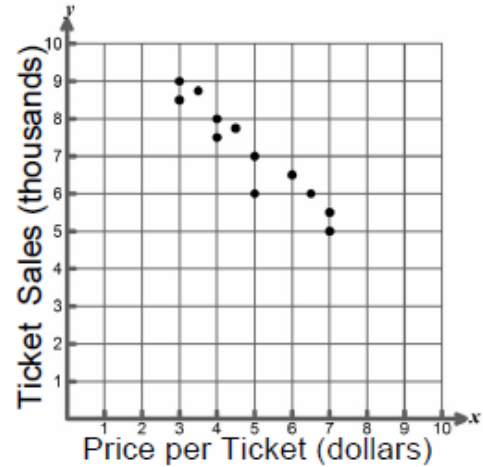
PER. _____

SCATTER PLOTS

Use the given graphs to answer the following questions.

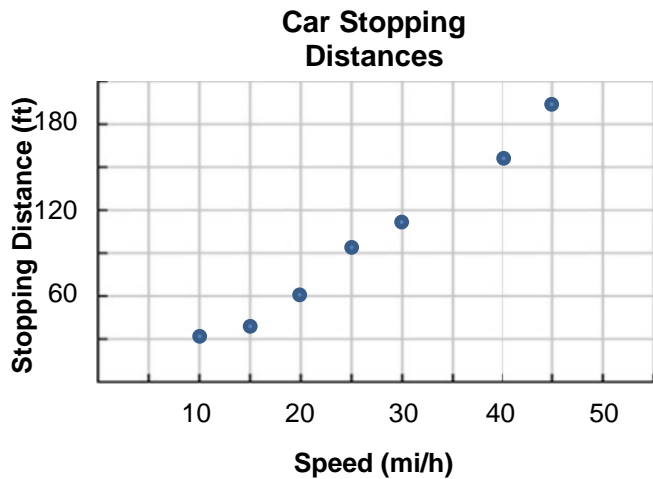
1) The graph represents data collected from a survey of movie theaters.

- a) What were the ticket sales at a movie theater when the price per ticket was \$6.50?
- b) When the ticket sales were \$8000 at a movie theater what was the price per ticket?
- c) Draw a trend line and predict the ticket sales when the price per ticket is \$9.
- d) What type correlation is represented on the graph?
- e) As the price per ticket increases, what happens to the ticket sales in the movie theaters?



2) The table below shows how speeds affects car stopping distances.

- a) What is the approximate stopping distance when the car's speed is 20 mi/h?
- b) What is car's speed when the stopping distance is 30 ft?
- c) What type of relationship does the data show?
- d) Draw a trend line and estimate the stopping distance when the car's speed is 35 mph.
- e) As the speed of the car increases, the stopping distance _____.
- f) When the car's speed is 50 mi/h, the car's approximate stopping distance is _____.



3) The table below shows the height and weight for 5 different members of the basketball team.

Height (in)	71	68	70	73	74
Weight (lb)	170	160	175	180	190

a) Make a scatter plot of the data in the table.

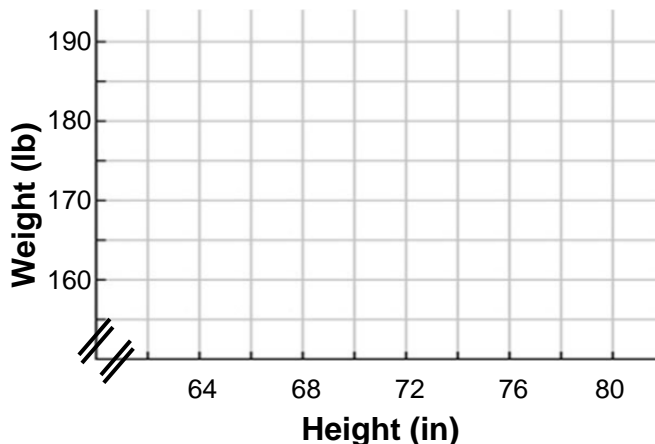
b) Draw a trend line.

c) As the height of the basketball player increases,

_____.

d) Estimate the weight of a 6-foot-tall basketball player.

e) If a basketball player on this team weighs 185 lbs, about how tall is he/she?

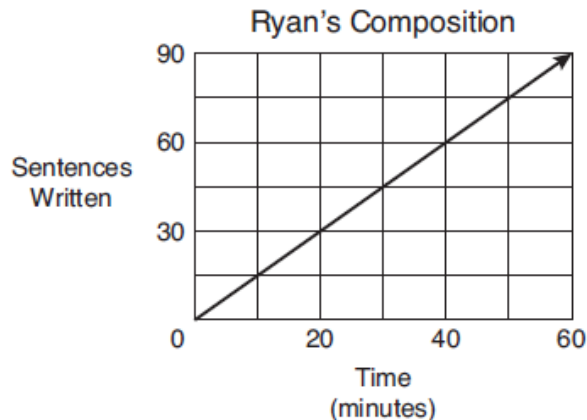


Answer the following, showing work when appropriate.

4. Ryan is writing a composition for homework. He decides to keep track of the number of sentences he writes compared to the time in minutes he works. The graph below shows the data he collected.

At what rate does Ryan write his composition?

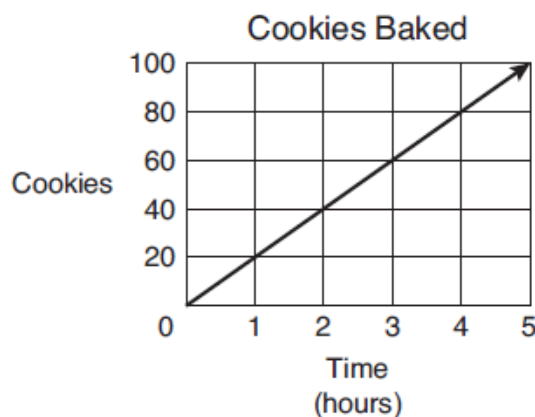
- A. 0.5 sentence per minute
- B. 1 sentence per minute
- C. 1.5 sentences per minute
- D. 2 sentences per minute



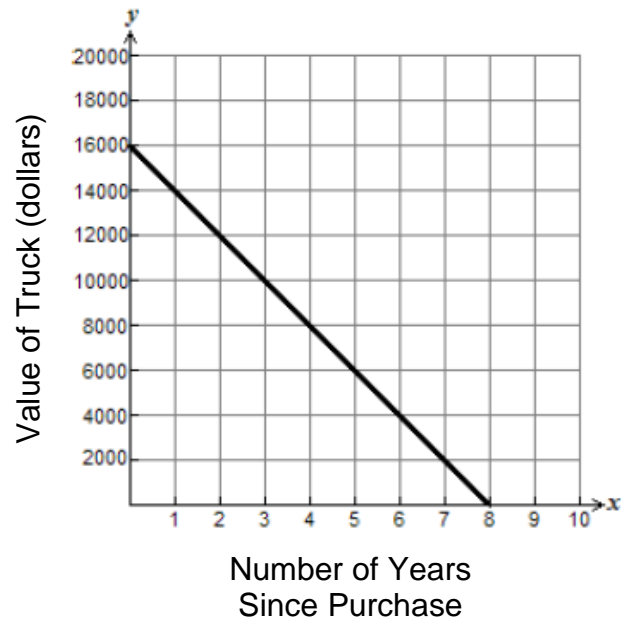
5. Mark and his friends are baking cookies for a bake sale. The graph below shows the total number of cookies they have compared to the number of hours they bake.

How would the graph change if Mark and his friends were given 20 cookies when they started baking?

- A. The y-value of the y-intercept would increase.
- B. The slope would increase.
- C. The y-value of the y-intercept would decrease.
- D. The slope would decrease.



6. A delivery service purchased a new delivery truck. The graph below shows the value of the truck over a period of time.



Which statement is not true for the graph?

- A. The truck was purchased for \$16,000.
- B. The truck decreases in value by \$2,000 each year.
- C. When the truck is 3.5 years old, its value is \$8000.
- D. The truck's value is \$4,000 when it is 6 years old.

Review. Show work where appropriate.

7. Which statement best describes the relationship between the graphs of the equations $y = \frac{2}{3}x - 4$ and $3x + 2y = 12$?

- A. The graphs are two perpendicular lines.
- B. The graphs are two parallel lines.
- C. The graphs have the same y-intercept.
- D. The graphs have the same x-intercept.

8. How does the graph of the equation $6x + 3y = 12$ compare to the graph of the equation $6x + 3y = 36$?

- A. The graph of $6x + 3y = 36$ is 24 units below the graph of $6x + 3y = 12$.
- B. The graph of $6x + 3y = 36$ is 8 units below the graph of $6x + 3y = 12$.
- C. The graph of $6x + 3y = 36$ is 24 units above the graph of $6x + 3y = 12$.
- D. The graph of $6x + 3y = 36$ is 8 units above the graph of $6x + 3y = 12$.