

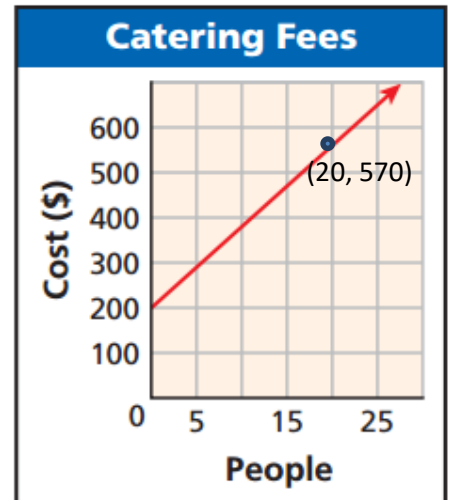
Algebra RH

Essential Question: How can we represent a linear relationship symbolically from a graph?

Do Now:

The graph pictured to the right shows the relationship between the fees charged by a catering company and the number of people served.

- Calculate the rate of change and identify the y-intercept. Write an equation that represents the linear relationship.
- What is the meaning of the y-intercept and the rate of change in your equation?



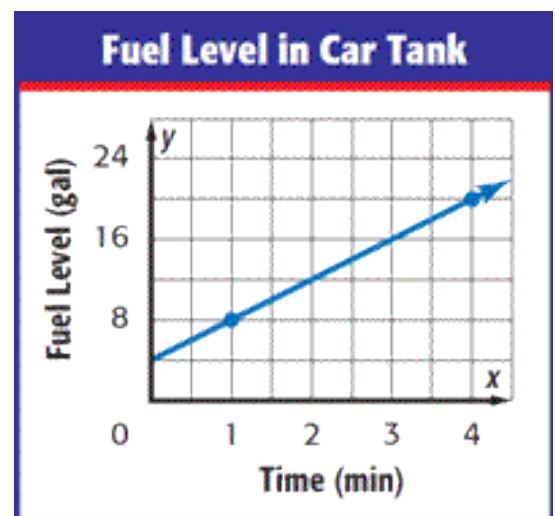
- If you have \$4,000, can you hold an event for 200 guests? Justify your response.



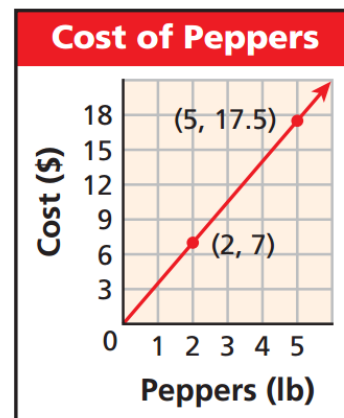
Think about this...

Linear relationships can be represented symbolically by creating an equation in two variables.

- Write an equation to represent the linear relationship shown by the graph.
What does the y-intercept represent?
What does the rate of change represent?



- 2) Write an equation to represent the linear relationship shown by the graph. What does the y-intercept represent? What does the rate of change represent?

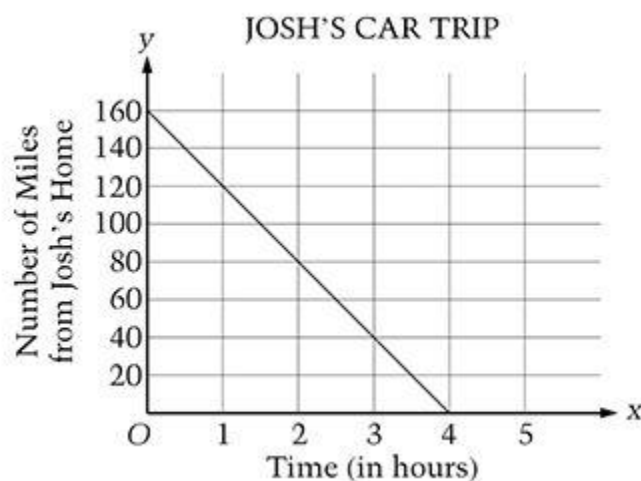


Interpreting X and Y-Intercepts of a Graph

- 3) The graph below shows the relationship between time and miles as Josh leaves his cousin's house to travel home.

- a) Identify the y-intercept of the graph.
What does it tell us in the context of this situation?

- b) Identify the x-intercept of the graph.
What does it tell us in the context of this situation?



- c) Use the intercepts to calculate the rate of change.
What does the rate of change tell us in the context of this situation?

- d) Write an equation that represents the linear relationship shown by the graph.

- e) Using your equation, determine how long Josh has been driving when he is 52 miles from home.

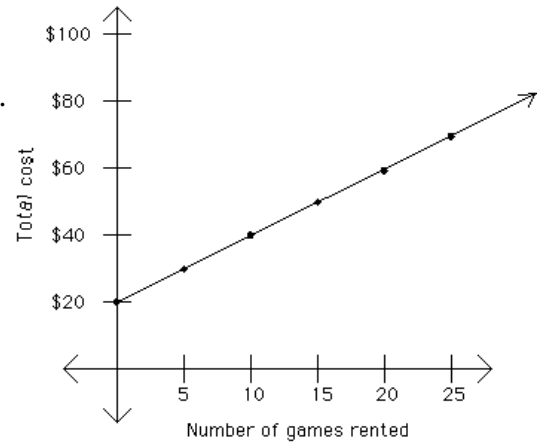
We can represent linear relationships displayed on a graph symbolically by identifying the _____ and calculating the _____.

Algebra RH

HW # _____

1) The graph pictured below represents the total cost of renting video games from a video game store that specializes in renting vintage video games that uses vintage systems such as Atari and Nintendo. Any person wishing to rent a video game must acquire a membership from the store.

a) Write an equation that represents the linear relationship.
Explain the meaning of the rate of change and the y-intercept.



b) In this graph, the points are connected to form a line.
Do you think it makes sense to connect the points? Explain.

2) Analyze the graph below and complete a - c.

a) Identify the y - intercept. What does it represent?

b) Identify the x-intercept. What does it represent?

c) Using the intercepts, write an equation that represents the linear relationship. Explain the meaning of the rate of change.

