

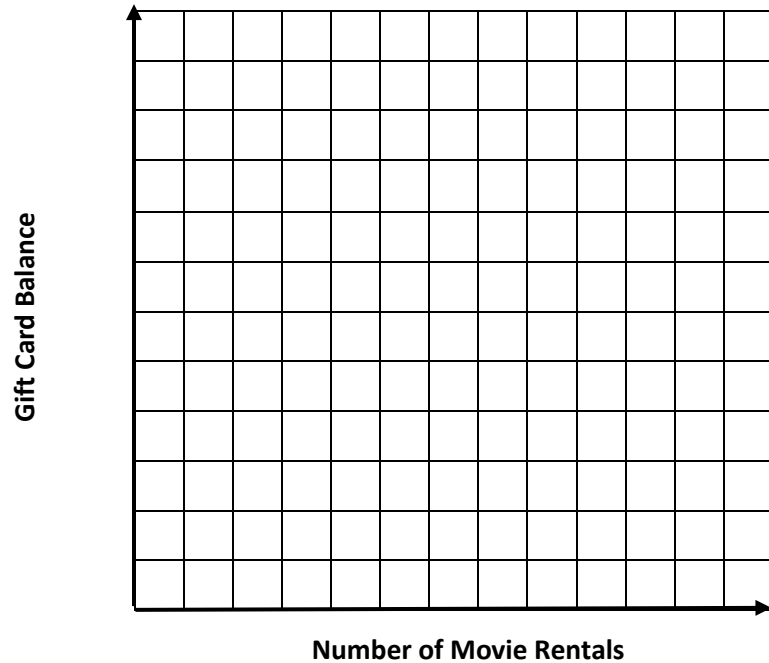
Name _____

Period _____

SHORT ANSWER:

1. Michelle received an iTunes gift card for \$10. Each movie rental on iTunes costs \$2.50.

Part A Write and graph the function rule that models the balance of his gift card.



- Part B** Michelle wanted to rent 6 movies on her snow day. The gift card did not cover the movies. How much more did Michelle have to pay? Show work or explain how you got your answer.

2. In September 2016, there were approximately 510 million Instagram users. In September 2017, there were approximately 802,000,000 Instagram users. How many more people used Instagram in 2016 compared to 2017? Express your answer in scientific notation.

3. A reporter collected data on y , the current market value, in dollars, of a certain house for various years, x , after it had been purchased new. The equation below was fit to the data.

$$y = 202,500 + 1,200x$$

What does the slope of the graph of this equation represent?

What does the y -intercept of the graph of this equation represent?

4. The owner of a football team wondered if ticket prices affect the number of people attending a game. He collected the following data.

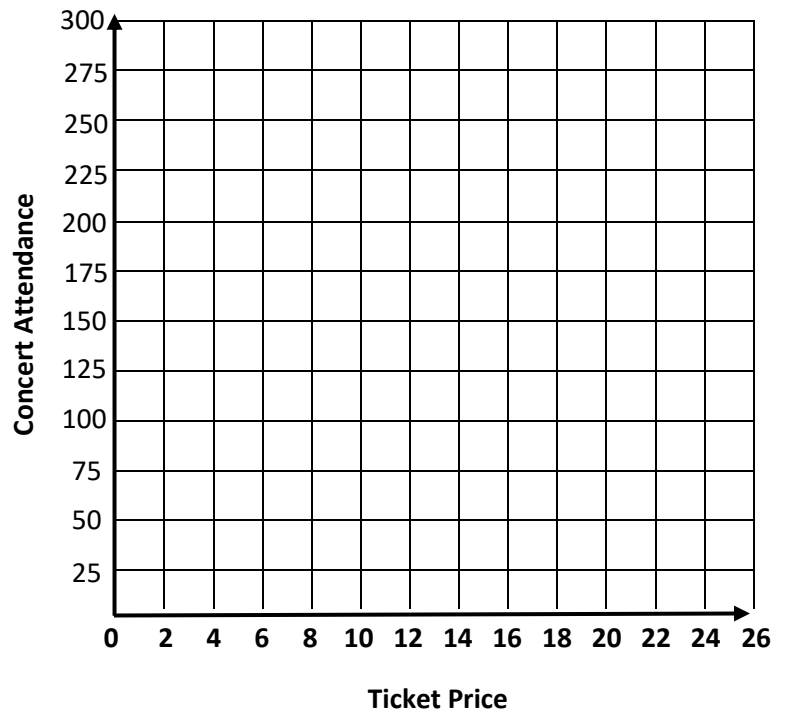
TICKET PRICE AND GAME ATTENDANCE

Ticket Price	2	8	20	15	7.50	25	20	15	12.50	22.50	5	12
Concert Attendance	275	200	75	125	275	25	50	100	150	25	250	100

Part A Create a scatter plot of this data on the grid below.

Part B Draw in a possible line of best fit through the points (5, 250) and (15, 100).

Part C Algebraically determine the equation of the line of best fit.



Part D What type of association, if any, is shown by the scatter plot? If there are any outliers, identify them and explain why.

5. The data given in the table below is about modes of transportation to and from school at Brookside High School. Fill in the missing information.

	Walk	Car	Bus	Cycle	Total
Male		28			129
Female	46		12	17	92
Total		45	27	69	

Find each relative frequency to the nearest tenth of a percent.

What percentage (relative frequency) of people surveyed took a bus to school?

What percentage (relative frequency) of people surveyed are males that walk to school?

What percentage (relative frequency) of the females surveyed bike to school?

What percentage (relative frequency) of those who walk to school are males?