RSCS Name:_____

Class:_____ Date:_____

HOMEWORK

1) Ms. Gibson made an initial deposit of $500 when opening a bank account. After the initial deposit, she deposited the same amount of money each month. The table below shows the total amount of money, *a*, she deposited into the account after a certain number of months, *t*, since opening it.

	Total Amount Depo i
4	$1,500
8	$2,500
10	$3,000
13	$3,750

Which equation models the relationship between *a* and *t*?

A $a = 250t$

B $a = 500t$

C $a = 250t + 500$

D $a = 500t + 250$

2) Which set of ordered pairs represents a function?

A {(2, 7), (2, 8), (3, 8)}

B {(3, 2), (3, 3), (3, 4)}

C {(4, 1), (5, 1), (4, 4)}

D {(5, 6), (8, 6), (9, 6)}

3) Which statement **best** explains whether these ordered pairs represent a function?

$(-4, 2), (6, 7), (-8, 3), (9, 10), (12, 14), (6, 9)$

A The ordered pairs represent a function because no output values are repeated.

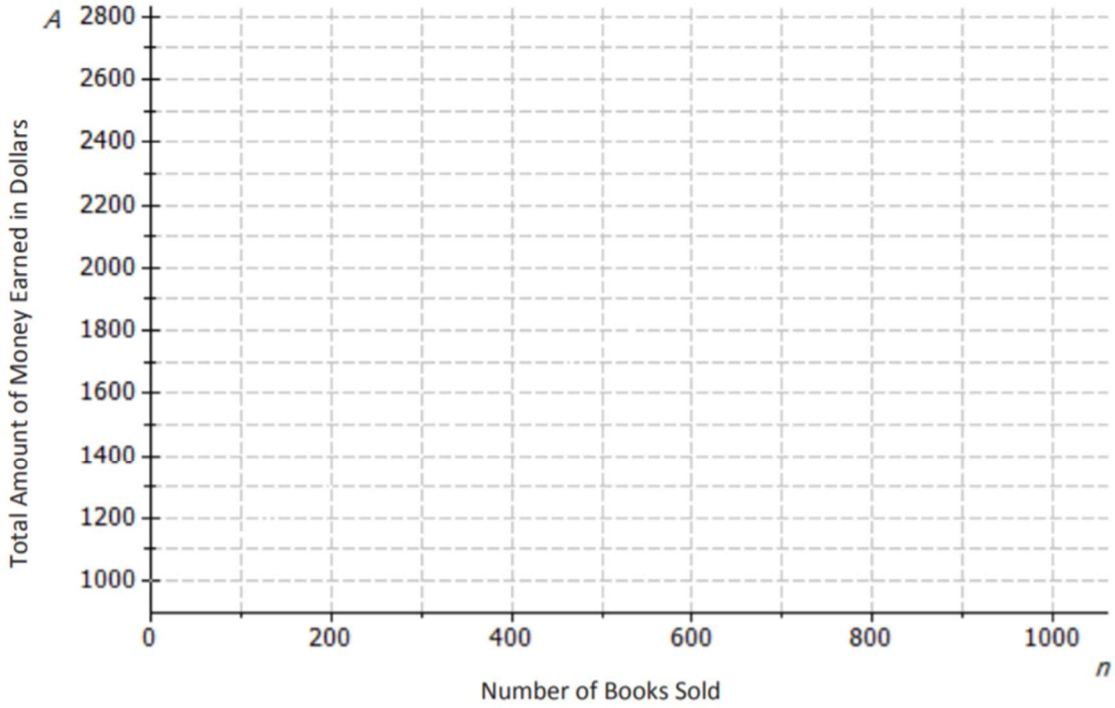
B The ordered pairs represent a function because each output value is greater than each input value.

C The ordered pairs do not represent a function because one input value has two different output values.

D The ordered pairs do not represent a function because the difference between the input and output of each ordered pair is not the same.

4) An author has been paid a writer's fee of $1,000 plus $1.50 for every copy of the book that is sold.

a. Sketch the graph of the linear function that relates the total amount of money earned in dollars, A, to the number of books sold, n, on the axes below.

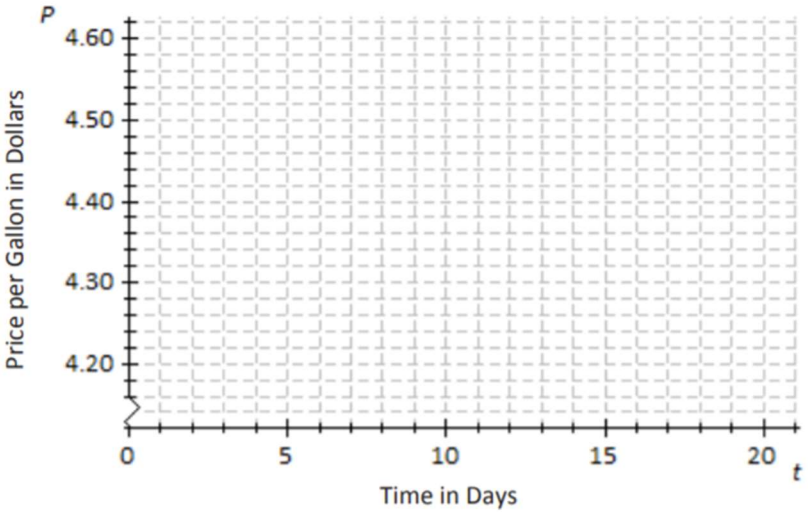


b. What is the rate of change that relates the total amount of money earned to the number of books sold?

c. What is the initial value of the linear function based on the graph?

d. Let the number of books sold be n and the total amount earned be A. Construct a linear function that models the relationship between the number of books sold and the total amount earned.

Suppose that the price of gasoline has been falling. At the beginning of last month ($t = 0$), the price was $\$4.60$ per gallon. Twenty days later ($t = 20$), the price was $\$4.20$ per gallon. Assume that the price per gallon, P, fell at a constant rate over the twenty days.



a. Identify the ordered pairs given in the problem. Plot both points on the coordinate plane above.

b. Using a straightedge, draw the line that contains the two points.

c. What is the rate of change? What does it mean within the context of the problem?

d. What is the function that models the relationship between the number of days and the price per gallon?

e. What was the price of gasoline after 9 days?

f. After how many days was the price $4.32?