

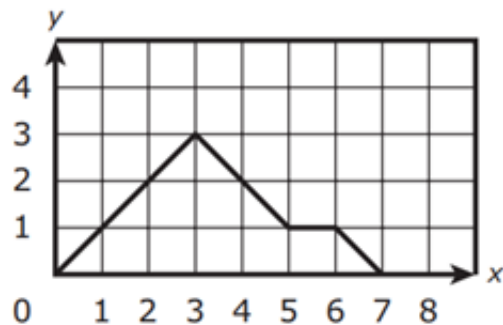
Name:

Class:

Grade 8, Unit 5: Practice Summative Assessment

Question 1

The graph of a function is shown.



Which of the following statements describes an interval of the function?

- Ⓐ The function is decreasing from $x = 5$ to $x = 6$.
- Ⓑ The function is decreasing from $x = 2$ to $x = 4$.
- Ⓒ The function is increasing from $x = 6$ to $x = 7$.
- Ⓓ The function is increasing from $x = 0$ to $x = 3$.

Question 2

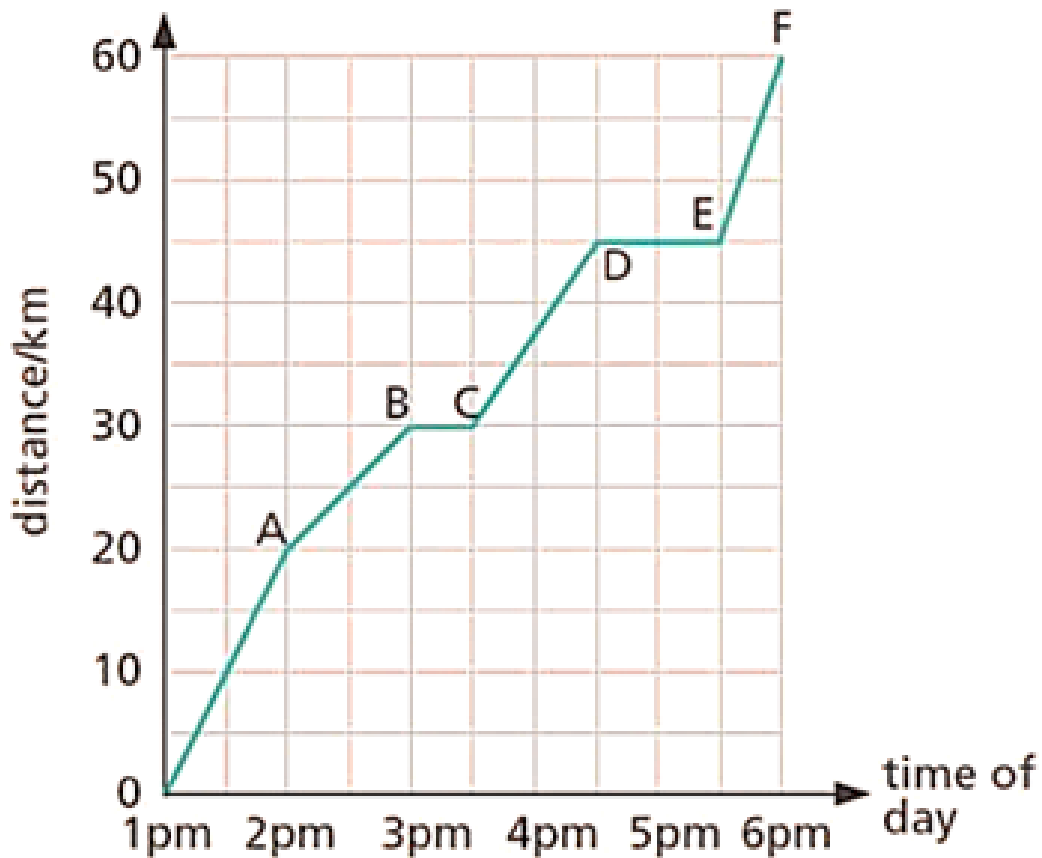
The relationship between the x and y values in this table is not a function. One of the values of x is missing from the table, as shown.

x	7	12	?
y	-6	-1	8

What is **one** value of x that could replace the missing value in the table to show that y is **not** a function of x ?

Question 3

The graph below shows the distance traveled during a bike ride.



Statement	True	False
Between 1pm and 2pm, the cyclist's speed was 20 km per hour.		
Between 2pm and 3pm, the cyclist's speed was 30 km per hour.		
The cyclist was stopped from 3pm to 4pm.		
The cyclist was stopped from 3pm to 3:30pm.		
The cyclist rode the fastest from 5:30pm to 6pm.		
The cyclist's fastest speed was 15 km per hour.		
The cyclist's fastest speed was 30 km per hour.		

Question 4

A certain investment portfolio increases at a rate of 10% every year. If \$200,000 is invested, the portfolio will hold \$220,000 after 1 year, will hold \$242,000 after 2 years, will hold \$266,200 after 3 years, and so on.

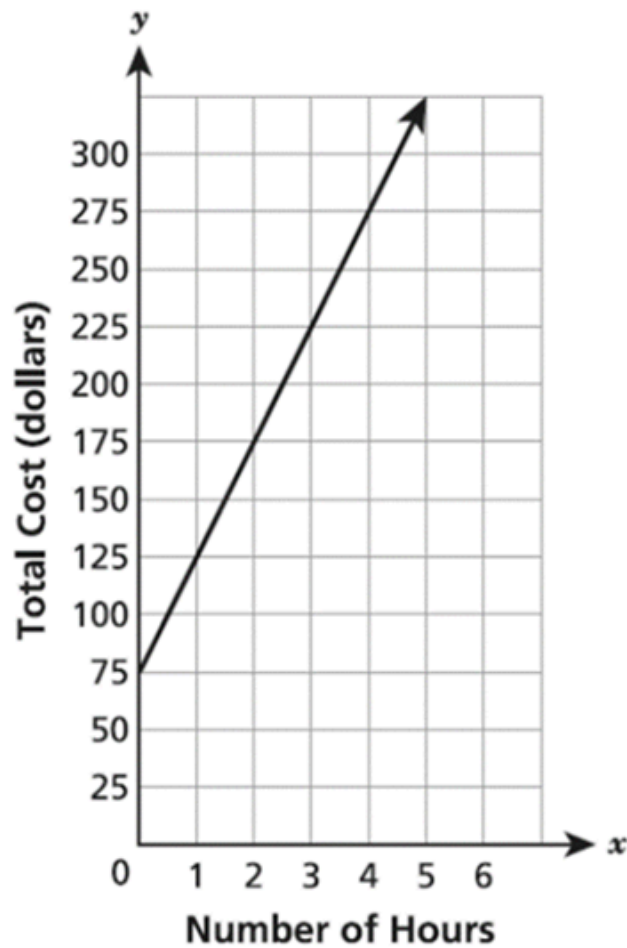
Show your work answering the questions below!

Part 1 Is the amount of money in the portfolio a function of the number of years the investment is held?

Part 2 If so, is it linear? Explain your reasoning.

Question 5

Two painting companies charge an hourly rate, plus a one-time fee. Company A charges according to the graph and Company B charges according to the table.



Number of Hours	Total Cost (\$)
1	100
3	250
5	400
10	775

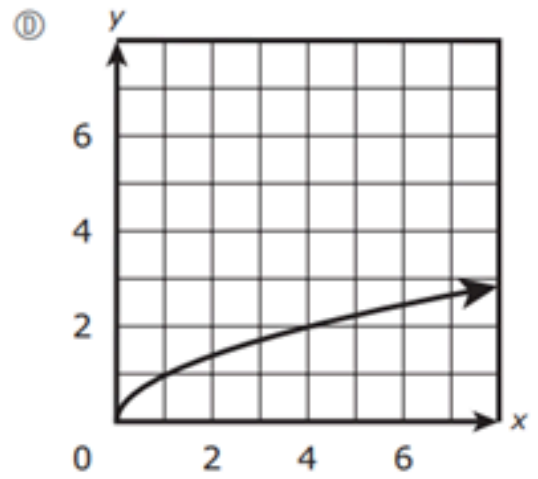
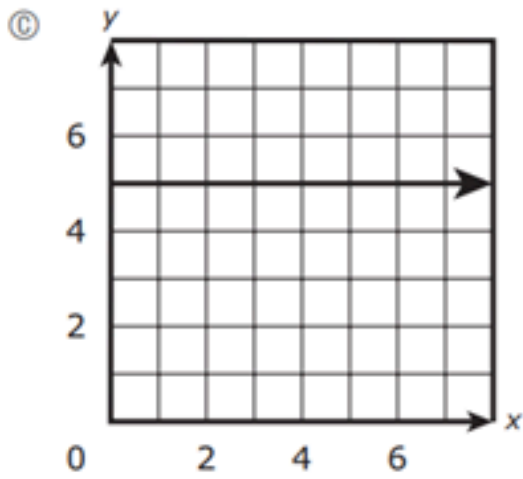
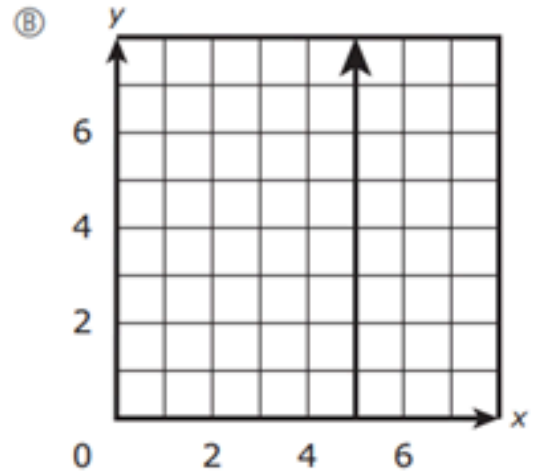
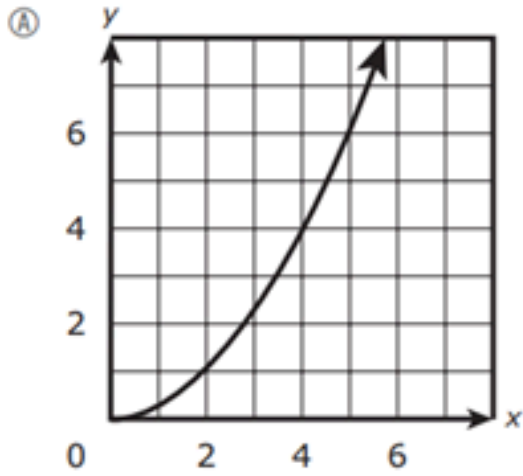
Show your work answering the questions below!

Part 1 Which company has the greater one-time fee?

Part 2 Which company has the higher hourly rate?

Question 6

Which of the following graphs shows a linear function?



Question 7

Which of the following is **not** a function?

