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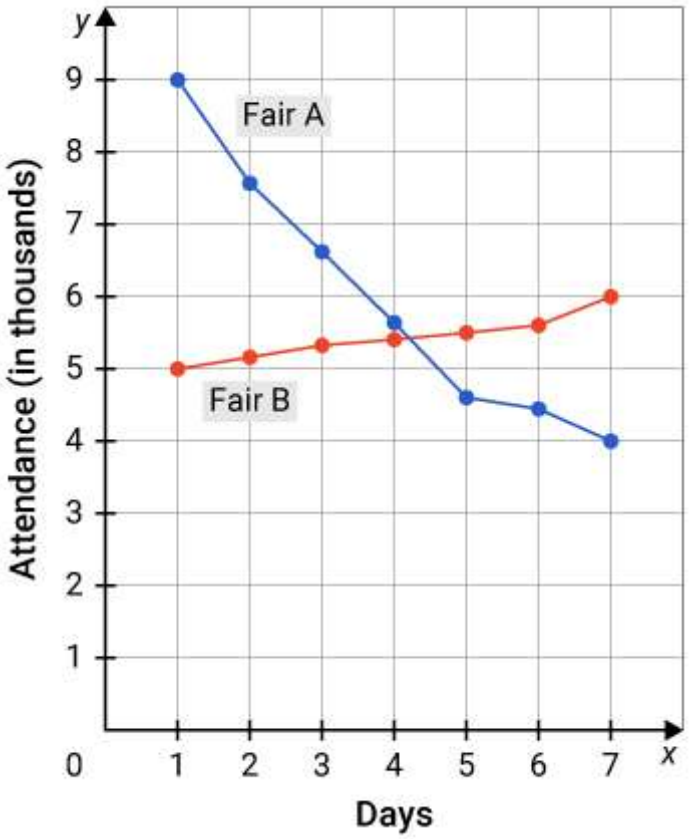
QUESTION 1

The graph shows the daily attendance at two fairs, in thousands of people.

Complete the statement that describes the rate of change of Fair A.

Select the correct answers from the drop-down menus.

The average rate of change for Fair A is about −830 , this means that



the number of people is decreasing every day .

QUESTION 2

What is the rate of change for the data?

Time (year), x	3	5	10	12
Value (AED), y	670	584	369	283

- (●) The rate of change is -43. The value decreases by AED 43 each year. ✓
- ( ) The rate of change is 43. The value increases by AED 43 each year.
- ( ) The rate of change is -43. The value increases by AED 43 each year.
- ( ) The rate of change is 43. The value decreases by AED 43 each year.

QUESTION 3

The graph shows the daily sales (in AED) for one week at two gift shops.

Which of the following statements is true?



- The average rate of change for Shop A is about 330 AED per day since sales are increasing. The average rate of change for Shop B is about −670 AED per day since sales are decreasing.

- The average rate of change for Shop A is about −330 AED per day since sales are decreasing. The average rate of change for Shop B is about 670 AED per day since sales are increasing. ✓

- The average rate of change for Shop A is about 330 AED per day since sales are decreasing. The average rate of change for Shop B is about 670 AED per day since

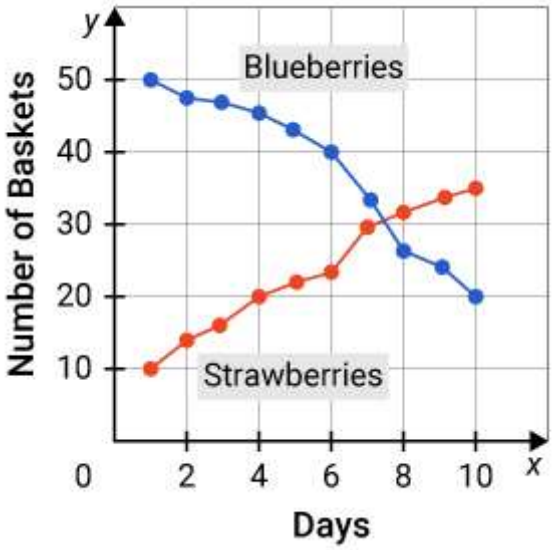
sales are increasing.

The average rate of change for Shop A is about 330 AED per day since sales are increasing. The average rate of change for Shop B is about 670 AED per day since sales are decreasing.

QUESTION 4

The graph shows the number of baskets of strawberries and blueberries sold in a day at a fruit stand.

Which statement describes the average rate of change for number of baskets sold in a day of strawberries and blueberries?



The average rate of change for blueberries is about −3.3 baskets per day since it is decreasing. The average rate of change for strawberries is about 2.8 baskets per day since it is increasing.

The average rate of change for blueberries is about 3.3 baskets per day since it is increasing. The average rate of change for strawberries is about 2.8 baskets per

day since it is increasing.

The average rate of change for blueberries is about 3.3 baskets per day since it is increasing. The average rate of change for strawberries is about −2.8 baskets per day since it is decreasing.

The average rate of change for strawberries is about −3.3 baskets per day since it is decreasing. The average rate of change for blueberries is about −2.8 baskets per day since it is decreasing.

QUESTION 5

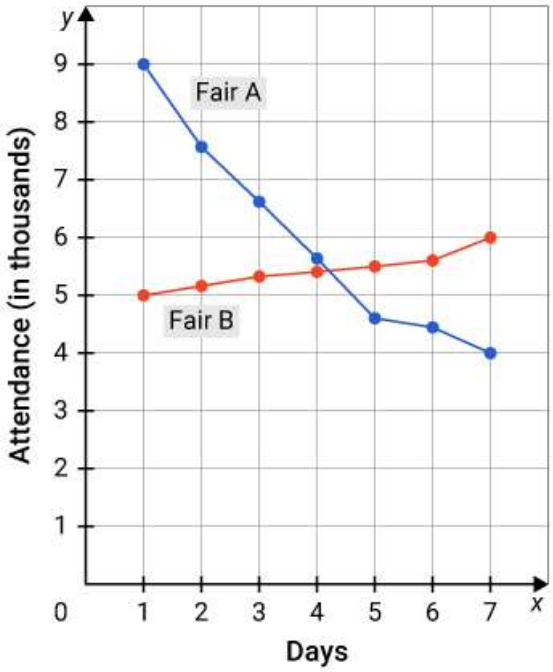
The graph shows the daily attendance at two fairs, in thousands of people.

Complete the statement that describes the rate of change of Fair B. Select your answers from the drop-down menus.

The average rate of change for Fair B is about

170 ✓ people

per day since it is ascending ✓ .



QUESTION 6

What is the rate of change for the data?



Number of buses, x	4	5	6	7
Number of students, y	120	150	180	210

Select your answers from the drop-down menus.

The rate of change is 30 ✓ .

Each bus holds 30 ✓ students.

QUESTION 7

What is the rate of change of the data?



Years, x	4	6	9	13
Height (m), y	$3\frac{1}{3}$	4	5	$6\frac{1}{3}$

Enter your answers in the spaces provided.

The rate of change is $\frac{1}{3}$ ✓.

The height of the tree increases by $\frac{1}{3}$ ✓ meter each year.

QUESTION 8

What is the rate of change for the data? Enter your answers in the spaces provided.



Number of people, x	4	5	6	7
Ticket cost (AED), y	28	35	42	49

The rate of change is 7 ✓.

A ticket costs AED 7 ✓ for each person

QUESTION 9

Calculate the rate of change for the data. Enter your answers in the spaces provided.



Mass of bananas (kg), x	2	3	4	5
Cost (AED), y	12	18	24	30

The rate of change is 6 ✓.

The cost of 1 kilogram of bananas is AED 6 ✓.

QUESTION 10

What is the rate of change for the data? Choose the correct statement.



Time (hours), x	3	4	5	6
Snowfall (cm), y	9	12	15	18

- The rate of change is $\frac{1}{3}$. Every hour,

$\frac{1}{3}$

centimeter of snow will fall.

The rate of change is 9. Every hour, 9 centimeters of snow will fall.

The rate of change is 3. Every hour, 3 centimeters of snow will fall. ✓

The rate of change is 1. Every hour, 1 centimeter of snow will fall.

QUESTION 11

What is the rate of change of the data? Choose the correct statement.



Number of people, x	8	9	10	11
Museum admission (AED), y	120	135	150	165

The rate of change is $\frac{1}{15}$. Each museum admission costs AED

$\frac{1}{15}$

.

- ○ The rate of change is 1. Each museum admission costs AED 1.
- ◉ The rate of change is 15. Each museum admission costs AED 15. ✓
- ○ The rate of change is 30. Each museum admission costs AED 30.

QUESTION 12

Determine the rate of change.



Gasoline (L), x	5	7.5	11	15.5
Price (AED), y	11.25	16.875	24.75	34.875

Select your answers from the drop-down menus.

The rate of change is 2.25 ✓. The price of gasoline increases ✓ by AED 2.25 ✓ for each liter.

QUESTION 13

What is the rate of change for the data?



Time (hours), x	1	3.5	6	11.5
Temperature (°C), y	22.625	22	21.375	20

Select your answers from the drop-down menus.

The rate of change is $-\frac{1}{4}$ ✓. The temperature drops by $\frac{1}{4}$ ✓ °C each hour.

QUESTION 14

Calculate the rate of change of the data.



Time (hours), x	4	7	11	14
Water depth (meters), y	4.25	3.875	3.375	3

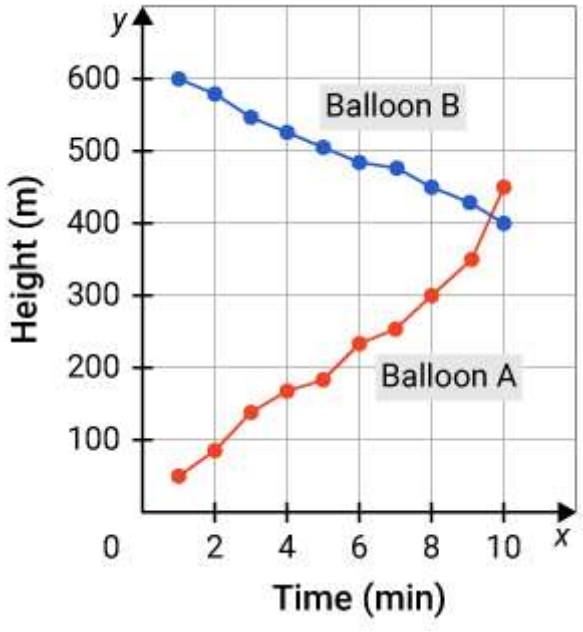
- (selected) The rate of change is -0.125. Each hour, the water level drops by 0.125 meter. ✓
- The rate of change is 0.125. Each hour, the water level changes by 0.125 meter.
- The rate of change is 8. Each hour, the water level changes by 8 meters.

The rate of change is -8. Each hour, the water level changes by -8 meters.

QUESTION 15

The graph shows the height (in meters) of two hot air balloons above the ground.

Which of the following statements is true?



The average rate of change for Balloon A is about 44.4 meters per minute as it ascends. The average rate of change for Balloon B is about −22.2 meters per minute as it descends.

The average rate of change for Balloon A is about −22.2 meters per minute as it

The average rate of change for Balloon A is about −22.2 meters per minute as it descends. The average rate of change for Balloon B is about 44.4 meters per minute as it ascends.

The average rate of change for Balloon A is about 44.4 meters per minute as it descends. The average rate of change for Balloon B is about 22.2 meters per minute as it descends.

The average rate of change for Balloon A is about −44.4 meters per minute as it ascends. The average rate of change for Balloon B is about 22.2 meters per minute as it descends.