Name

(9)

124080031_1

F

The table below shows the cost of different numbers of goldfish at a pet store.

COST OF GOLDFISH

Number of Goldfish	Cost
5	$1.50
10	$3.00
15	$4.50
20	$6.00

The cost is a linear function of the number of goldfish. Which statement describes the rate of change of this function?

A The cost increases $0.30 each time 1 goldfish is added.

B The cost increases $1.50 each time 1 goldfish is added.

C The cost increases $3.00 each time 5 goldfish are added.

D The cost increases $6.00 each time 5 goldfish are added.

(11)

124080609_4

F

The four tables below show relationships in which the x values represent inputs and the y values represent the corresponding outputs.

Q

x	y
−2	−3
1	3
3	−3
5	3

R

x	y
−1	−5
2	4
3	7
4	10

S

x	y
−2	3
1	3
3	3
5	3

T

x	y
3	4
4	5
3	−4
4	−5

Which table represents a relationship that is **not** a function?

A Q

B R

C S

D T

(12)

F

124080026_2

Madison created two functions.
For Function A, the value of y is two less than four times the value of x.
The table below represents Function B.

Function B

x	y
–3	–9
–1	–5
1	–1
3	3

In comparing the rates of change, which statement about Function A and Function B is true?

A Function A and Function B have the same rate of change.

B Function A has a greater rate of change than Function B has.

C Function A and Function B both have negative rates of change.

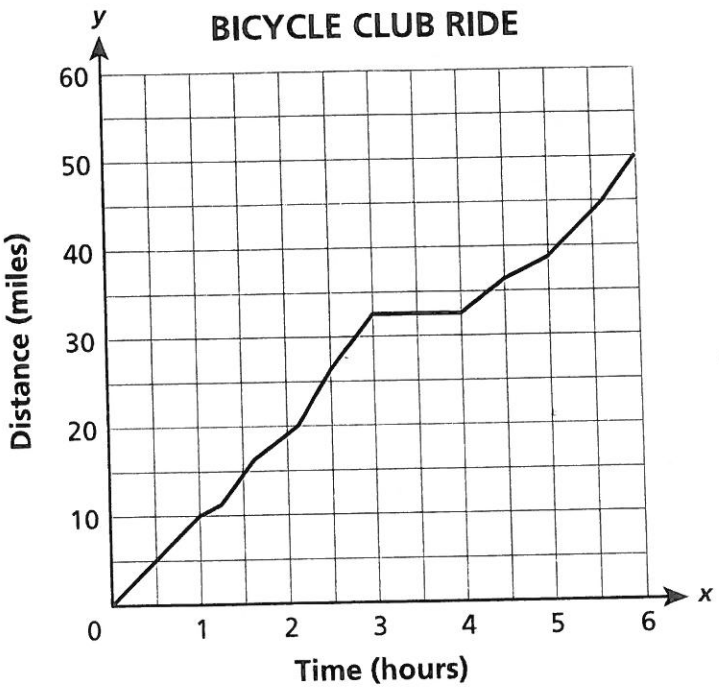
D Function A has a negative rate of change and Function B has a positive rate of change.

17

124080033_2

F

A bicycle club went on a six-hour ride. The graph below shows the relationship between the number of hours spent on the trails and the number of miles traveled.



Which statement best interprets information provided by the graph?

A The club members rode at a constant speed for the entire ride.

B The club members stopped for a rest during their ride.

C The number of miles traveled increased continuously throughout the ride.

D The number of miles traveled increased some of the time and decreased some of the time.

23

1340804[illegible]

The table below represents a linear function.

x	y
−1	5
1	9
3	13
5	17

Which function has a greater slope and a greater y-intercept than the linear function represented in the table?

A $y = 2x + 8.5$

B $y = 3x + 7.5$

C $y = 5x + 6.5$

D $y = 10x + 5.5$

24

134080413_1

F

Which phrase describes a nonlinear function?

A the area of a circle as a function of the radius

B the perimeter of a square as a function of the side length

C the cost of gasoline as a function of the number of gallons purchased

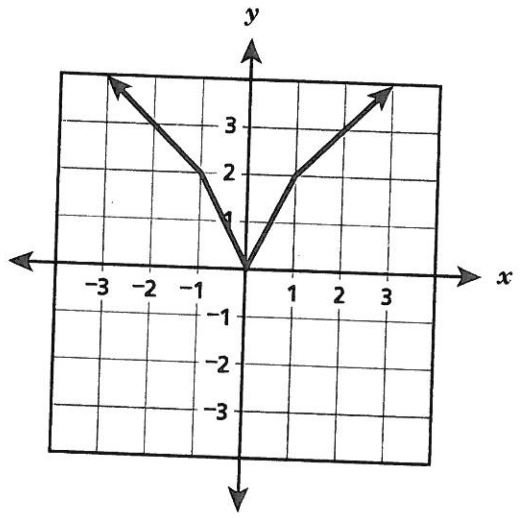
D the distance traveled by a car moving at constant speed as a function of time

25

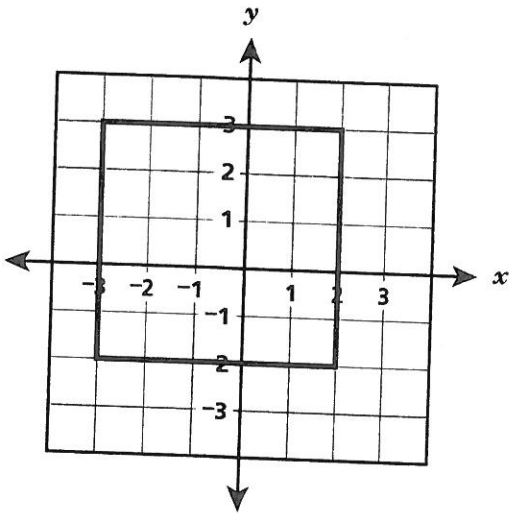
F

Which graph represents a function?

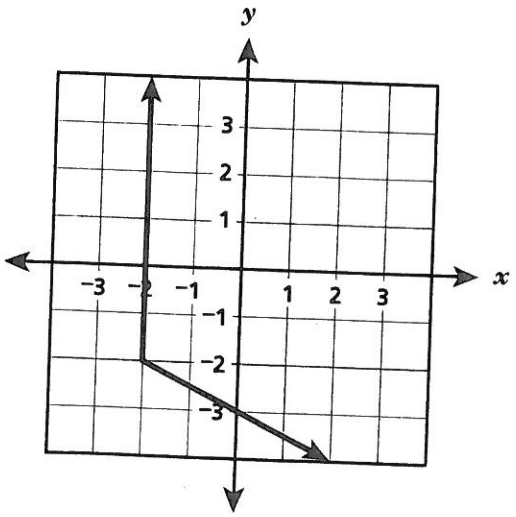
A



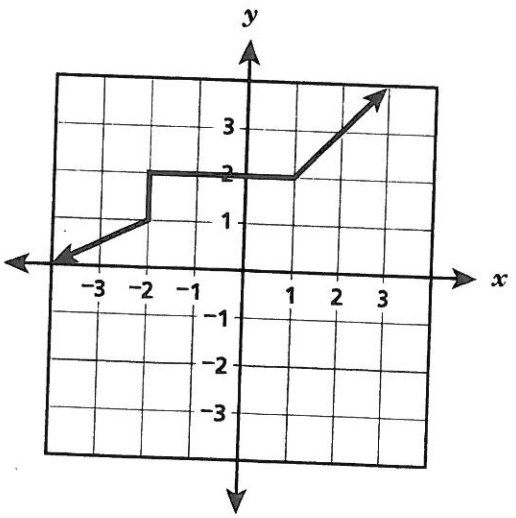
C



B



D



(22)

134080414_4

F

Which equation represents a linear function?

A $y = \frac{4}{x} + 1$

B $y = x^2 + 2$

C $y = \sqrt[3]{x + 1}$

D $y = -\frac{2}{3}x - \frac{1}{2}$

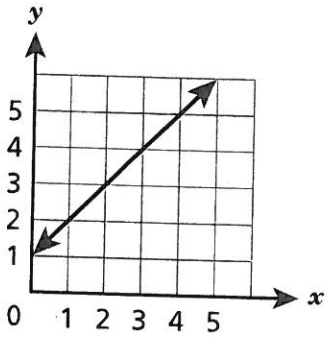
(23)

124080507_3

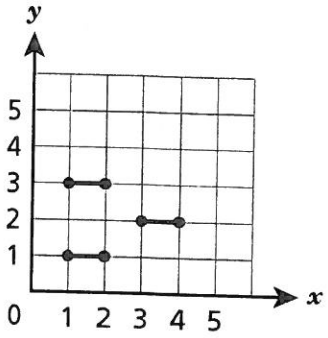
F

Which graph below does **not** represent a function of x?

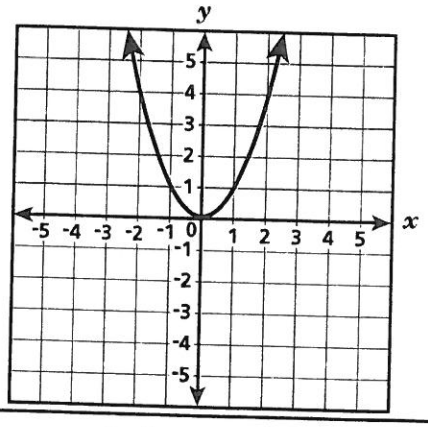
A



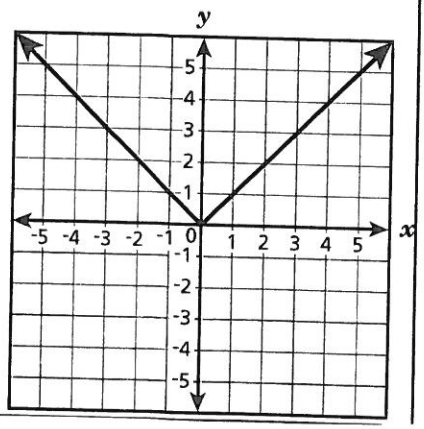
C



B



D



(24)

124080028_4

F

Which equation does **not** represent a linear function of x?

A $y = -\frac{3}{4}x$

B $y = \frac{x}{2}$

C $y = -3 + 2x$

D $y = 3x^2 - 2$