Name: _____ EOC review ~~4/20~~ 3/25

1 The floor in Lila's bedroom is 30 square yards. Calculate the area in square feet.

A) 540 square feet
B) 270 square feet
C) 90 square feet
D) 10 square feet

5yd 15ft
6yd 30yd 18ft 270ft

2 A student scored an 88, 92, and 76 on three math tests. What does the student need to get on the fourth test to have an average of 85 for all four tests?

James wants to use algebra to solve this problem. Which equation should he use?

$\frac{88+92+76+x}{4} = 85$

A) $4x = \frac{256}{85}$
B) $\frac{256+x}{4} = 85$
C) $\frac{85+x}{4} = 256$
D) $\frac{256}{3} = \frac{85x}{4}$

3 Savannah is 24 years older than Ryan, while Sebastian is 5 times as old as Ryan. If Savannah and Sebastian are twins, which equation may be used to determine the age of all three people?

A) $8x = 24$
B) $24 + 2x = 5x$
C) $24 + 5x = x$
D) $24 + x = 5x$

$24+x = 5x$

Savannah = $24+x$ (30)
Ryan = x $x=6$
Sebastian = $5x$ (30)

4 A school club is raising money for a trip, and needs to reach $10,000. Their fundraising progress is modeled by the function $f(x) = 435 + 1200x$, where x is measured in weeks.

What is the meaning of the coefficient 1200?

A) It is the amount they started with.
B) It is the amount still to be raised.
C) It is the amount which is left over.
D) It is the amount they raise each week.

5 In the expression $2x + 3$, the 2 is a _____.

A) coefficient
B) factor
C) product
D) term

1 Which expression best represents *the difference between triple a number and double a number*?

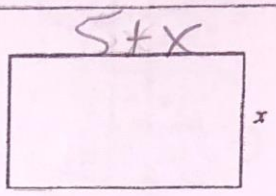
A) $3x - 2x$

B) $2x - 3x$

C) $x^3 - x^2$

D) $x^2 - x^3$

2



The rectangle shown has width x feet, and its length is five feet longer than its width.

The expression which correctly shows the area of the rectangle is

A) $2x + 5$

B) $4x + 10$

C) $x^2 + 5x$

D) $x^2 + 10x$

3 A golf driving range charges a flat fee of \$20 to practice and then \$5.75 for a bucket of balls. Write an equation that models the charges (C) in terms of the number of bucket of balls (b) that you use.

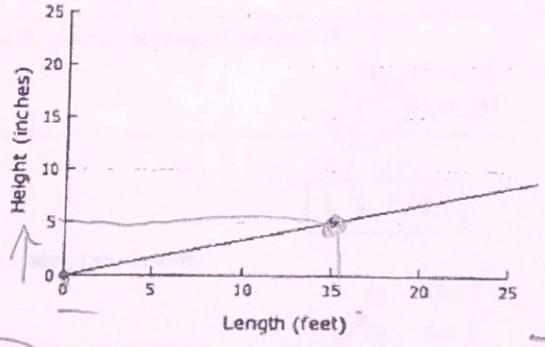
A) $C = 5.75b + 20$

B) $C = 20b + 5.75$

C) $b = 5.75C + 20$

D) $b = 20C + 5.75$

4



Find the rate of change for the ramp represented in the graph.

A) 2

B) 3

C) $\frac{1}{2}$

D) $\frac{1}{3}$

1

x	y
2	2
3	4
4	6
5	8

$\frac{2}{1}$ rise / run

$\frac{y_1 - y_2}{x_1 - x_2}$

$\frac{2-8}{2-5} = \frac{-6}{-3} = 2$

Which function corresponds with the table?

A) $f(x) = x + 2$

B) $f(x) = 2x - 2$

C) $f(x) = -2x + 2$

D) $f(x) = -2x - 1$

2

$6x + 3y = 9$
$2x + 3y = 1$

Solve the system of equations.

A) $x = 2, y = -1$

B) $x = -1, y = 2$

C) $x = -\frac{1}{2}, y = 3$

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

3 If the domain is {0, 2, -6}, what is the range of $y = -2x + 3$?

A) {0, 7, 29} 3, -1, 15

B) {0, 7, 15}

C) {3, -1, -9}

D) {3, -1, 15}

4

3, 5, 7, 9...

Generalize the pattern by finding the nth term.

A) $3n$

B) $n + 2$

C) $2n + 1$

D) $4n - 1$

5

$2x - 2y = 6$
$3x + 2y = 9$

Solve the system of equations.

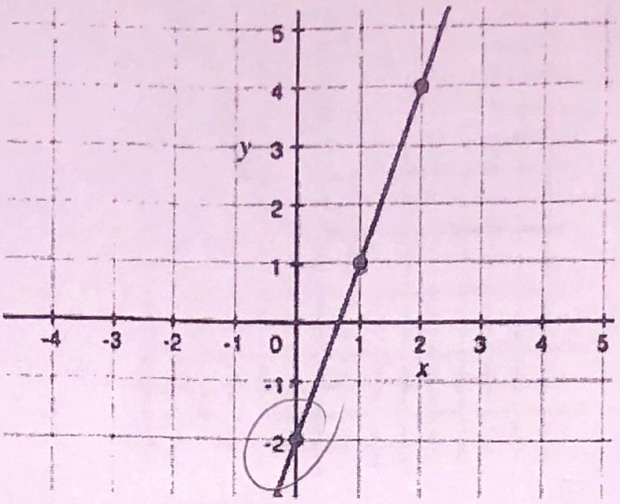
A) $x = 0, y = 3$

B) $x = 3, y = 0$

C) $x = 1, y = -2$

D) $x = -2, y = 1$

1



rise / run 3/1 = (3)

What is the equation of the line graphed?

A) ~~$y = 3x$~~

B) $y = 3x - 2$

C) ~~$y = -3x - 2$~~

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

2

n	a_n
1	1
2	5
3	9
4	13
5	17

Look at the sequence in the table. Which recursive formula represents the sequence shown?

A) $a_n = a_{n-1} + 4$

B) $a_n = 4a_{n-1} + 1$

C) $a_n = 2a_{n-1} + 3$

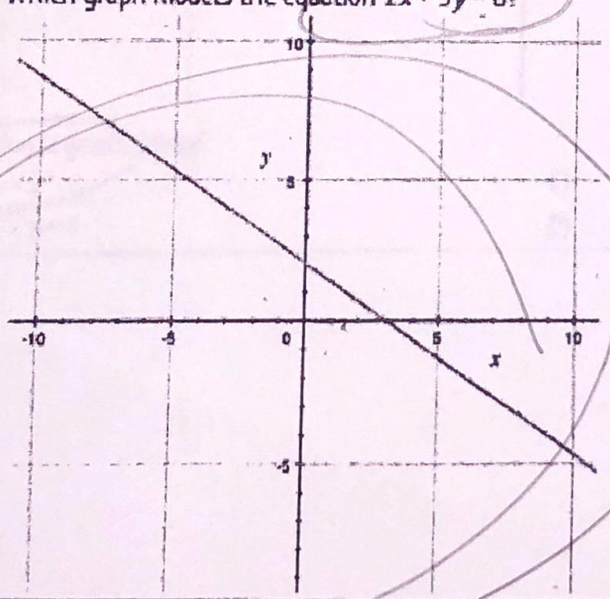
D) $a_n = 2a_{n-1} - 1$

3

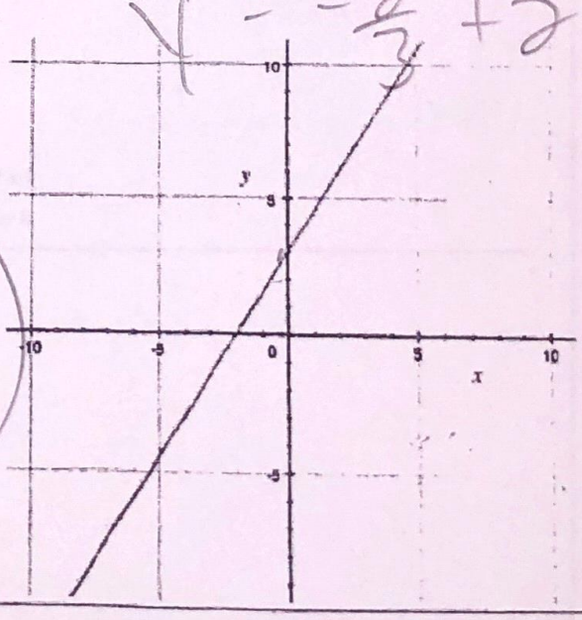
Which graph models the equation $2x + 3y = 6$?

$y = -\frac{2}{3} + 2$

A)



B)

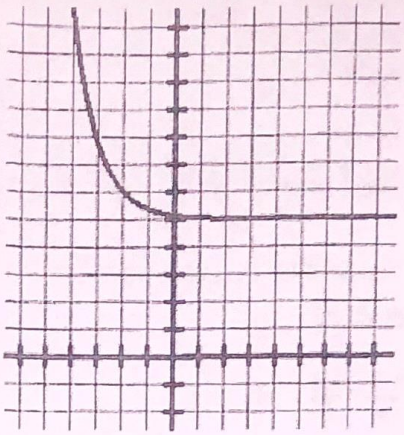


$2x + 3y = 6$

$-2x \quad -2x$

$\frac{3y}{3} = \frac{-2x + 6}{3}$

4



Determine the domain of the graphed exponential function.

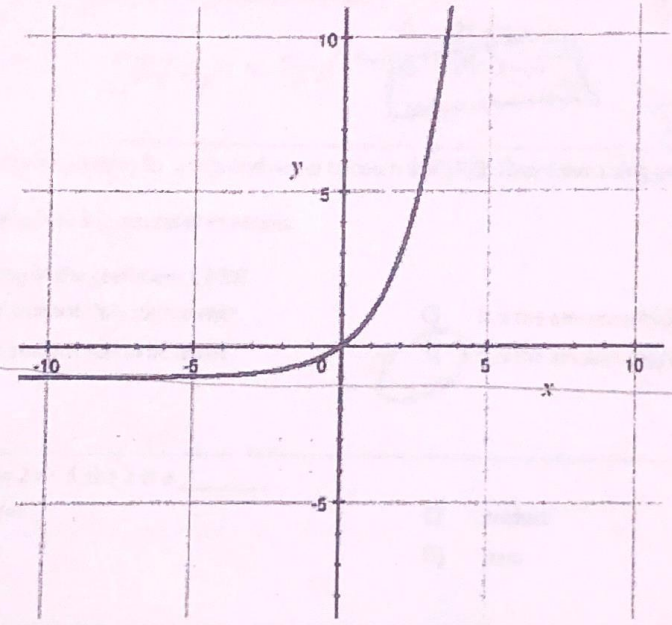
A) $(-\infty, \infty)$

B) $(-\infty, 5]$

C) $(-\infty, 5)$

D) $(-5, \infty)$

5



Which function is graphed here?

A) $y = 2^x - 1$

B) $y = 2^{(x-1)}$

C) $y = 2^x + 1$

D) $y = 2^{(x+1)}$