



Coordinate Algebra (CCGPS) EOCT Quiz

Algebra - (MCC9-12.A.SSE.1) Interpret Expressions, (MCC9-12.A.SSE.1b) Complicated Expressions, (MCC9-12.A.CED.1) Create Equations, (MCC9-12.A.CED.2) Graph Equations, (MCC9-12.A.CED.3) Represent Constraints, (MCC9-12.A.CED.4) Rearrange Formulas, (MCC9-12.A.REI.1) Explain Steps, (MCC9-12.A.REI.3) Linear Equations, (MCC9-12.A.REI.5) System Of Equations, (MCC9-12.A.REI.10) Understand Graph, (MCC9-12.A.REI.12) Graph Solutions
Number and Quantity - (MCC9-12.N.Q.1) Use Units, (MCC9-12.N.Q.2) Descriptive Modeling, (MCC9-12.N.Q.3) Level Of Accuracy

Student Name: _____

Date: _____

Teacher Name: Micah Shue

Score: _____

1) Rick rents a car from a company that charges him \$25 per day plus 10 cents per mile driven. Which expression can represent the amount he owed on a recent rental?

- A) $25x + 0.1y$
- B) $25.1x$
- C) $25.1xy$
- D) $25.1 + 35y$

2) Selena played 32 games of chess. If she won x games, which expression represents her losses?

- A) $32x$
- B) $32 + x$
- C) $32 - x$
- D) $\frac{32}{x}$

3) Simplify $3 - (4x - 5) + 6$.

- A) $12x + 21$
- B) $4x + 14$
- C) $4x + 4$
- D) $-4x + 14$

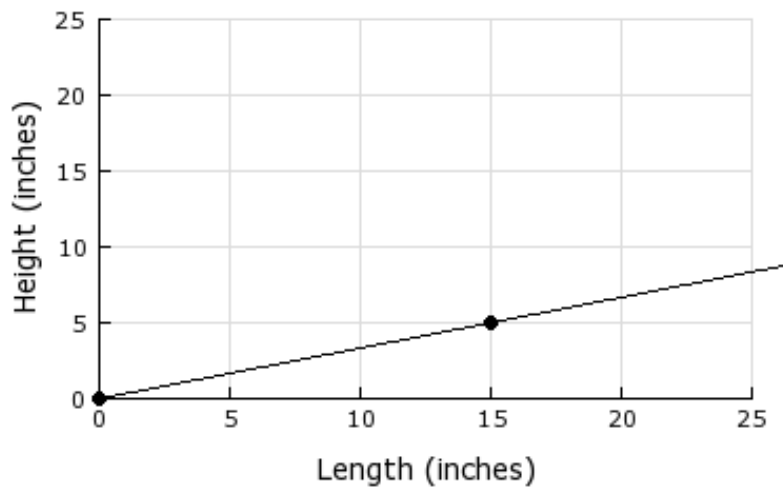
4) The cost of tuition at Johnson Community College is \$160 per credit hour. Each student also has to pay \$50 in fees. Model the cost, C , for x credit hours taken.

- A) $C(x) = 50x$
- B) $C(x) = 160x$
- C) $C(x) = 110x$
- D) $C(x) = 160x + 50$

5) Initially a pool contains 350 gallons of water. A hose is placed in the pool and the water is turned on. The hose adds 5.2 gallons of water per minute. Model the total amount, V , of water in the pool for x , the number of minutes the hose has been on.

- A) $V(x) = 5.2x$
- B) $V(x) = 350x - 5.2$
- C) $V(x) = 350x + 5.2$
- D) $V(x) = 5.2x + 350$

6)



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

Answer: _____

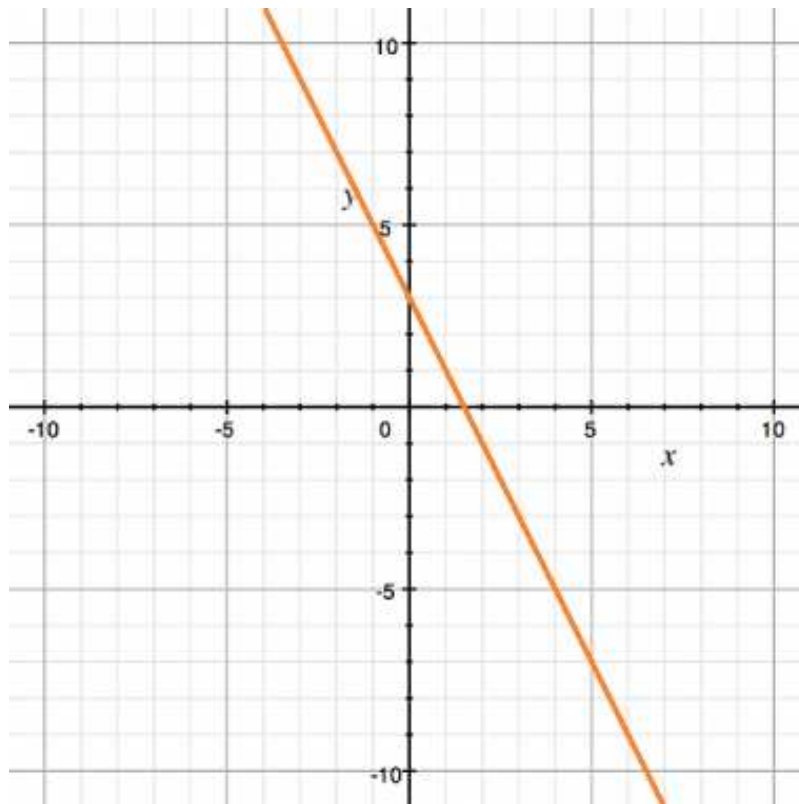
7)

x	y
2	2
3	4
4	6
5	8

Which function corresponds with the table?

- A) $f(x) = x + 2$
- B) $f(x) = 2x - 2$
- C) $f(x) = -2x + 2$
- D) $f(x) = -2x - 1$

8)



Identify the equation of the graph shown.

- A) $y = 2x + 3$
- B) $y = 2x - 3$
- C) $y = -2x + 3$
- D) $y = -2x - 3$

9)

Sam is 4 times as old as Allie.

Write an equation to model this situation.

- A) $S = 4A$
- B) $A = 4S$
- C) $S = 4 + A$
- D) $A = 4 + S$

10) A concession stand sells hamburgers (h) for \$2 and hotdogs (d) for \$1. On Friday night they sold a total of 300 hamburgers and hotdogs and made \$420. How many of each did they sell?

Which system of equations matches the situation?

- A)
$$\begin{cases} h + d = 300 \\ 2h + d = 420 \end{cases}$$
- B)
$$\begin{cases} h + d = 420 \\ 2h + d = 300 \end{cases}$$
- C)
$$\begin{cases} h + d = 300 \\ h + 2d = 420 \end{cases}$$

D)

$$\begin{cases} h + d = 720 \\ 2h + d = 300 \end{cases}$$

11) Given $2x - y = 6$, solve for y .

- A) $y = 2x + 6$
- B) $y = 2x - 6$
- C) $y = -2x + 6$
- D) $y = -2x - 6$

12) Given $A = bh$ solve for b .

A) $b = Ah$

B) $b = \frac{h}{A}$

C) $b = \frac{A}{h}$

D) $h = \frac{A}{b}$

13) Solve.

$$\frac{x + 3}{5} = 2$$

A) -5

B) -3

C) 7

D) 13

14) Solve.

$$3(x + 1) - 2x = -6.$$

A) $x = 1$

B) $x = 5$

C) $x = -7$

D) $x = -9$

15)

$$\begin{array}{l} x + 3y = 5 \\ -x + 6y = 4 \end{array}$$

Solve the system of equations.

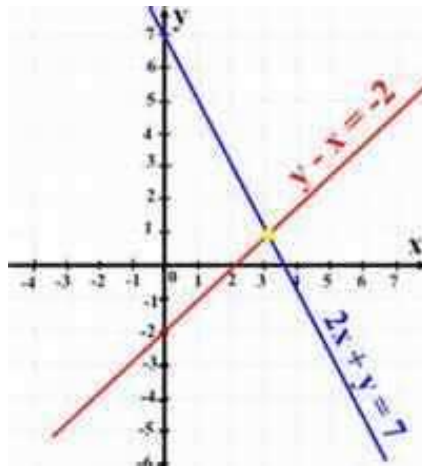
A) $x = 1, y = 2$

B) $x = 2, y = 1$

C) $x = 1, y = 1$

D) $x = 0, y = 2$

16)



Use the graph method to solve the system of linear equations:

$$y - x = -2 \text{ and } 2x + y = 7$$

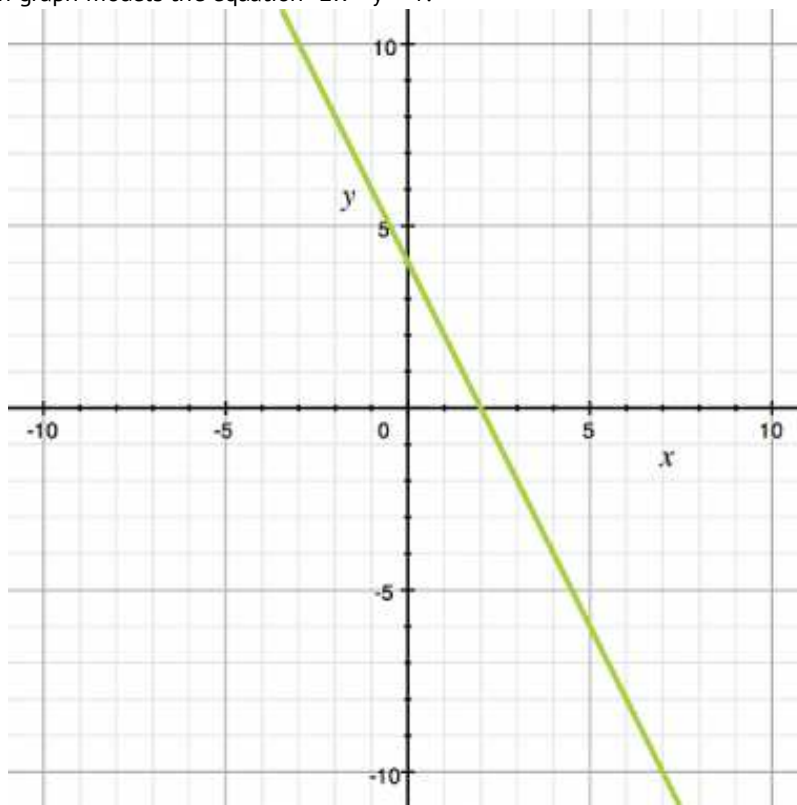
A) (0,7)

B) (2,0)

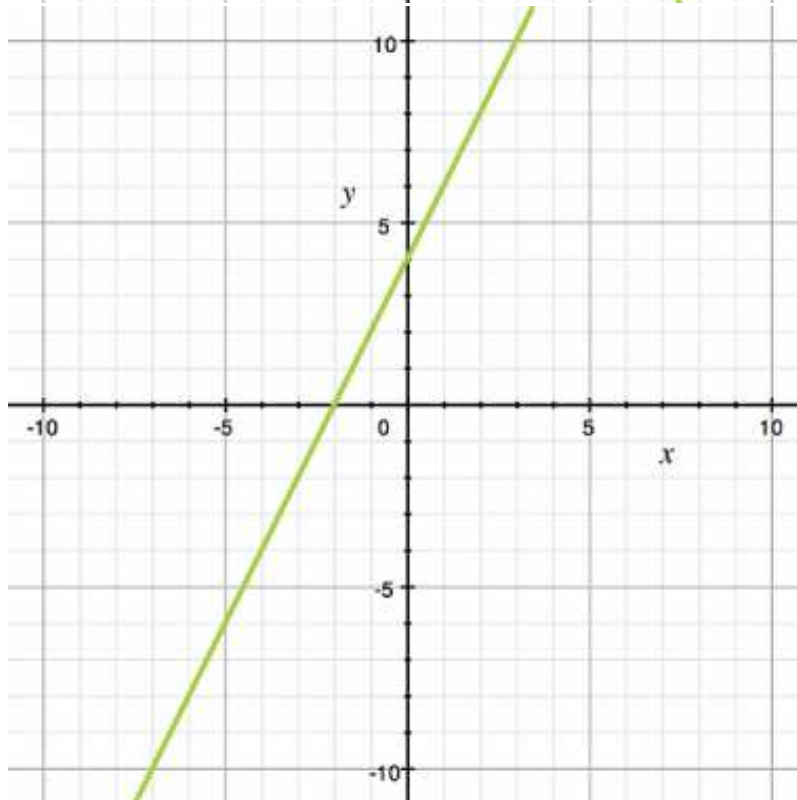
- C) (3.5,0)
- D) (3,1)

17) Which graph models the equation $-2x + y = 4$?

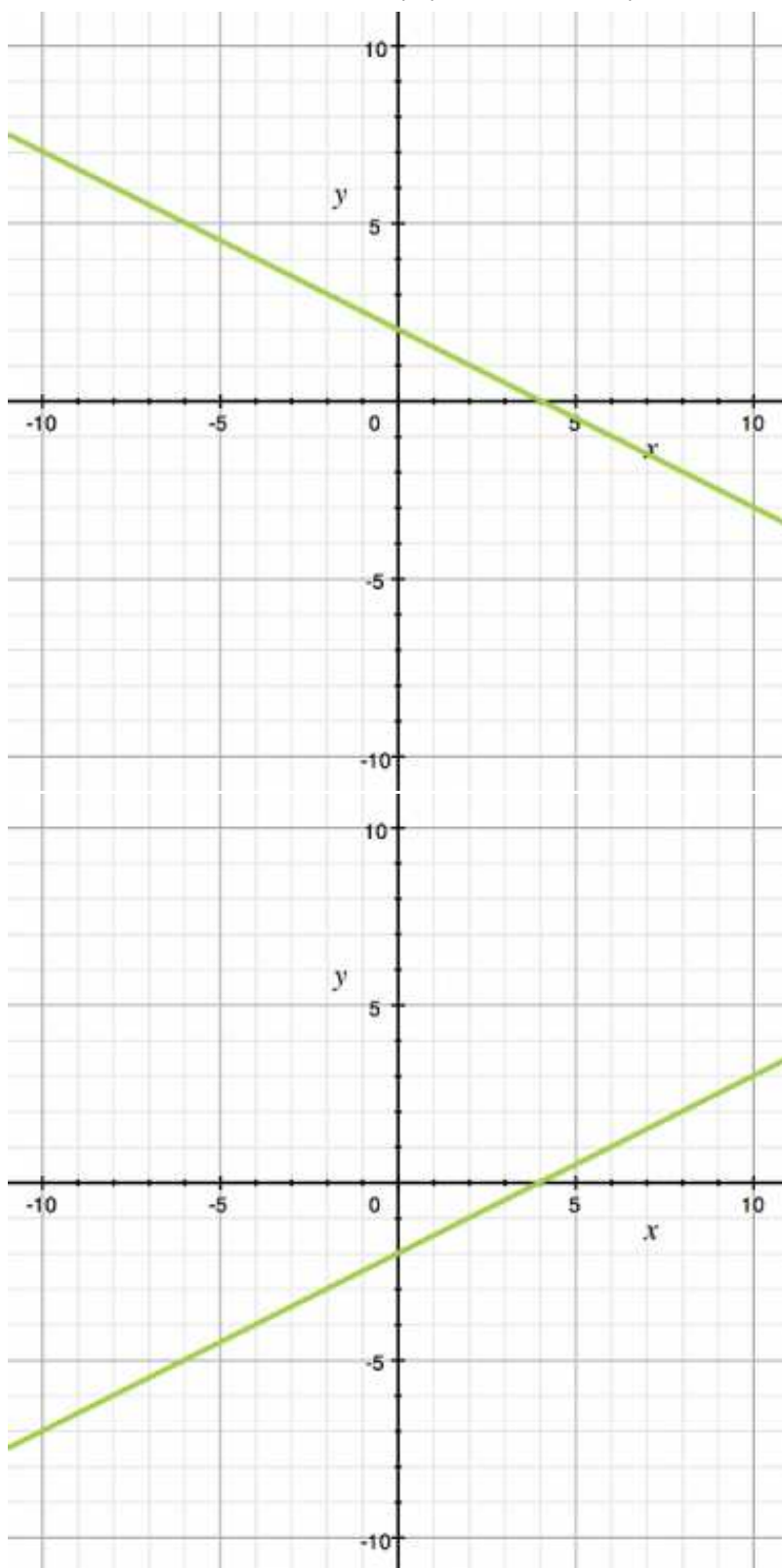
A)



B)



C)

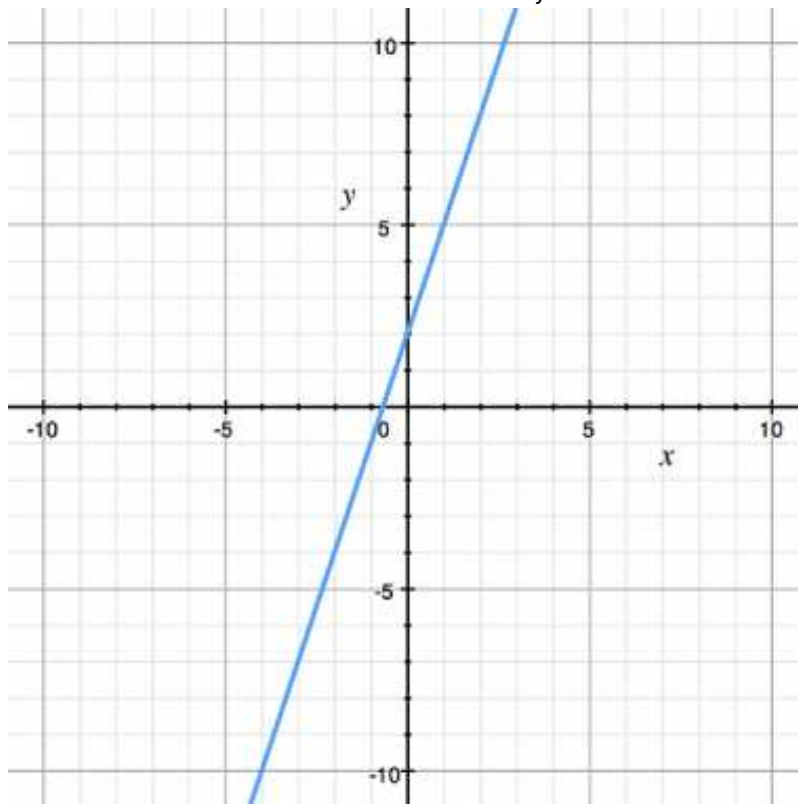


D)

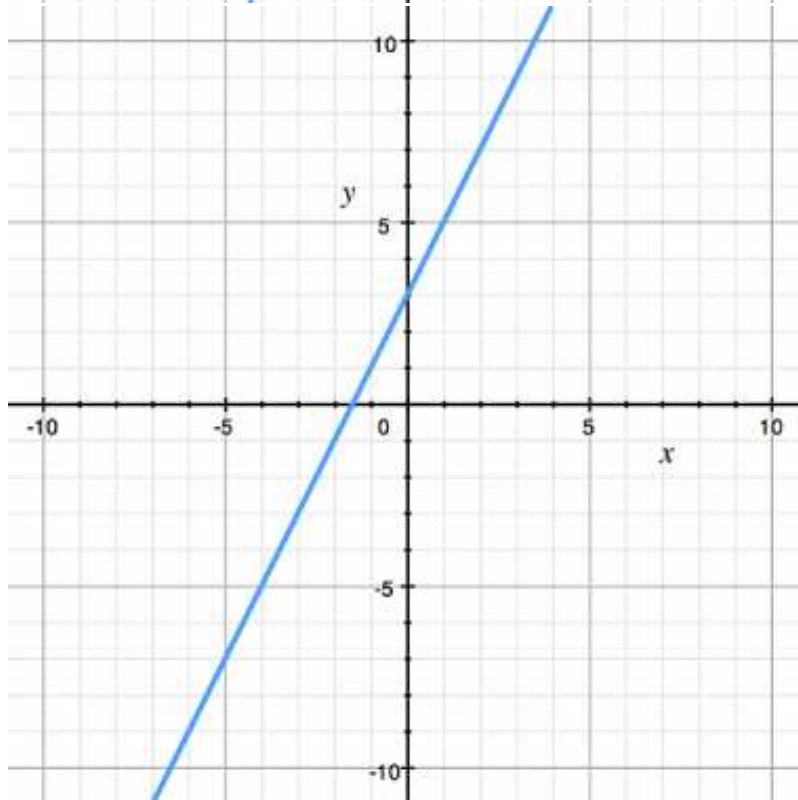
18) Graph

$$y = 2x + 3$$

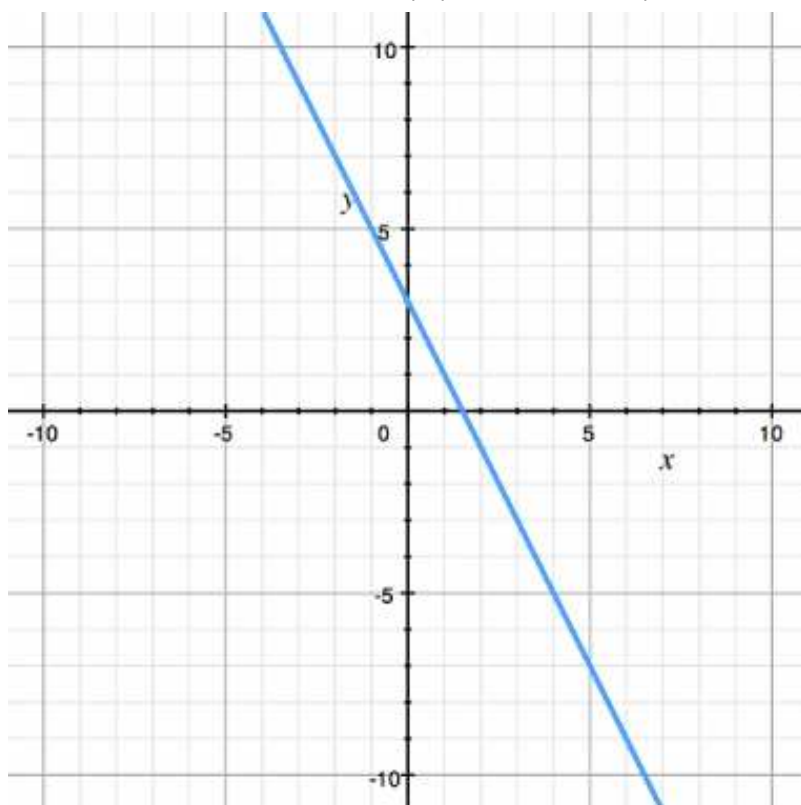
A)



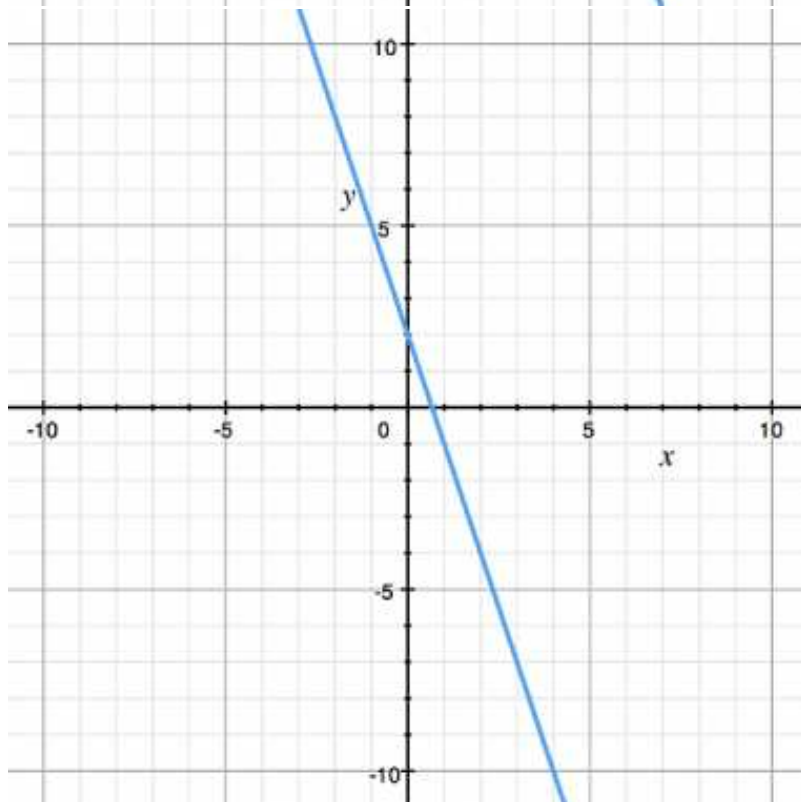
B)



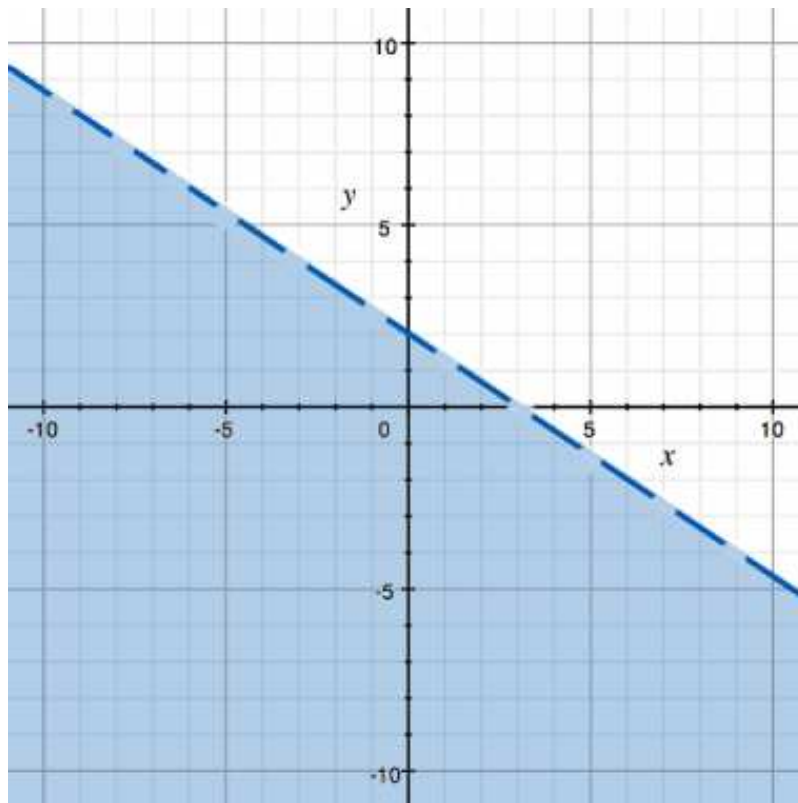
C)



D)



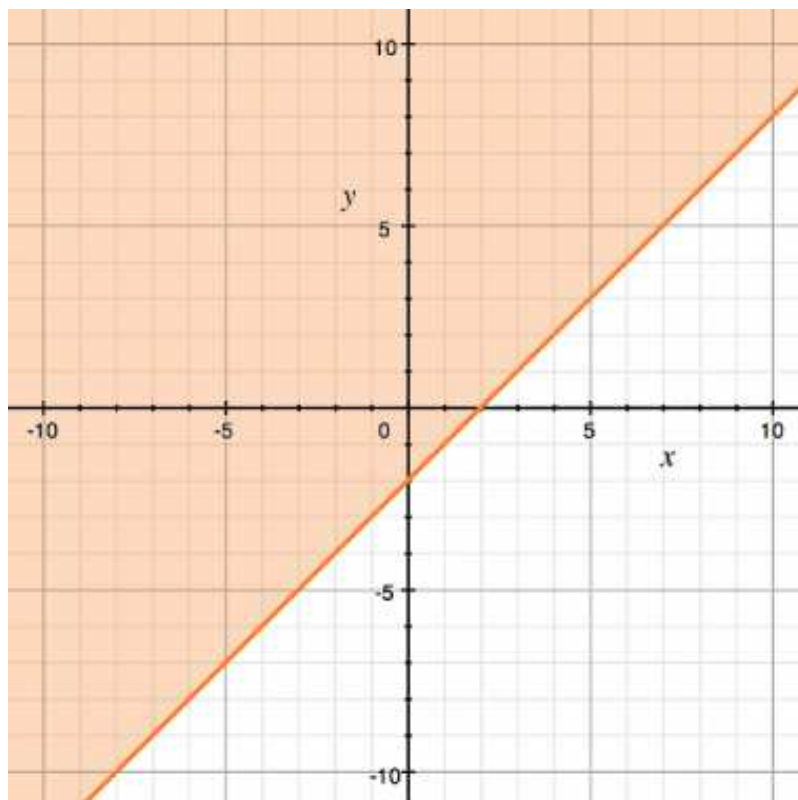
19)



The linear inequality $y < -\frac{2}{3}x + 2$ is graphed. Determine a solution for the inequality.

- A) (0, 2)
- B) (3, 0)
- C) (0, 0)
- D) (0, 3)

20)



Determine a solution for the linear inequality graphed here.

- A) (3, 0)
- B) (3, -1)
- C) (0, 0)
- D) (5, 2)

21) Change 27 centimeters to millimeters.

- A) 2.7 mm
- B) 27 mm
- C) 270 mm
- D) 2700 mm

22) Mrs. Reed is decorating wreaths. She needs 24 in. of gold ribbon and 45 in. of white ribbon to tie around each wreath. The white ribbon is sold by the foot. About how many feet of white ribbon will Mrs. Reed need to make 18 wreaths?

- A) 30 ft
- B) 50 ft
- C) 70 ft.
- D) 90 ft.

23) 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?

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

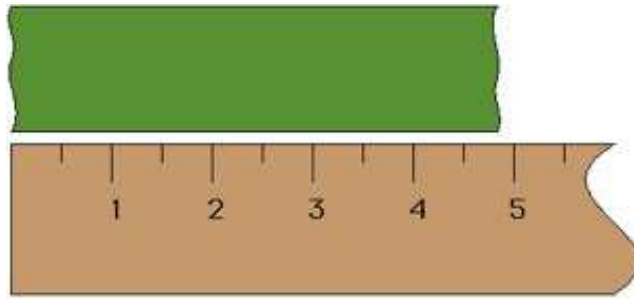
24)

Sarah and Kelvin are calculating the area of a circle with a radius of 52 cm. Kelvin uses 3.14 for pi when calculating this area while Sarah uses the pi button on her calculator. Kelvin gets a solution of 8,490.56 cm^2 , and Sarah gets a solution of 8,494.87 cm^2 .

Who has the most accurate solution? Why?

- A) Both answers are equally accurate.
- B) Kelvin; He did not have to round his answer.
- C) Neither answer is accurate as pi or 3.14 is not in the formula for the area of a circle.
- D) Sarah; The pi button on the calculator gives a more accurate representation for pi than 3.14.

25)



Which is the MOST precise measurement this ruler can give for the green strip of paper?

- A) 4.25 inches
- B) 4.50 inches
- C) 4.75 inches
- D) 5.00 inches

26) Which would give the most precise measurement?

- A) Find the distance between 2 cities to the nearest mile.
- B) Find the distance between 2 cities to the nearest 5 miles.
- C) Find the distance between 2 cities to the nearest 10 miles.
- D) Find the distance between 2 cities to the nearest 100 miles.