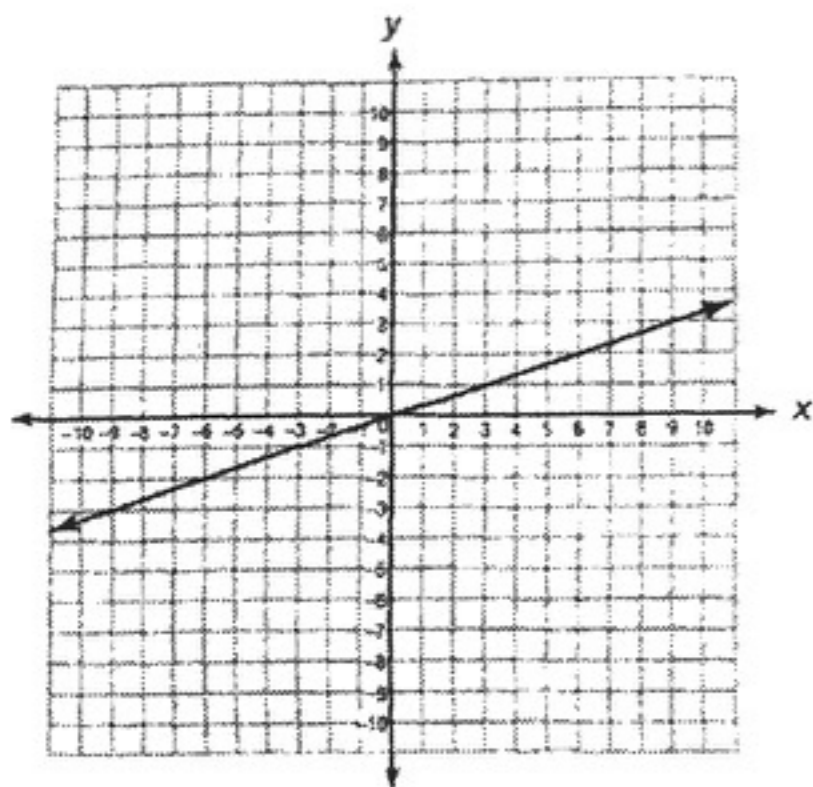


Review HW 1/14/16

Name: _____

- 1) Tariq graphed a proportion on the plane below.

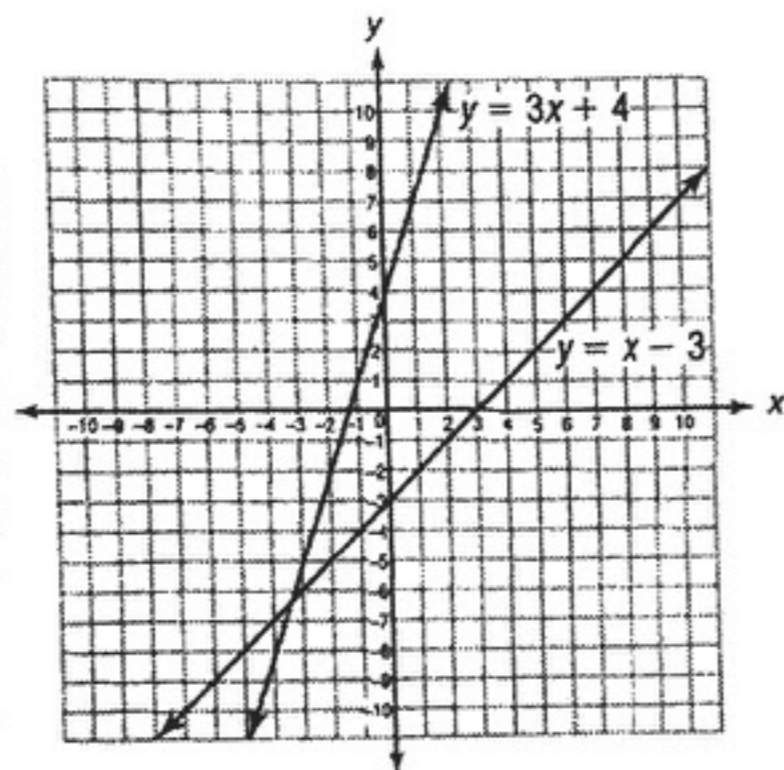


What are the equation and the y-intercept of the proportion?

- A. $y = x$; (0, 3)
- B. $y = x + 3$; (0, 3)
- C. $y = \frac{1}{3}x$; (0, 0)
- D. $y = \frac{1}{3}x$; (0, 1)

- 4) Solve for x: $-3(2x + 1) + 3x = 6x + 3$

- 5) The equations $y = 3x + 4$ and $y = x - 3$ are graphed below.



What is the solution to this system of linear equations?

- A. (-3.5, -6.5)
- B. (-3.5, 6.5)
- C. (3.5, -6.5)
- D. (3.5, 6.5)

- 6) Loretta calculated the distance she drove from home to her grandmother's house as 5.11×10^5 cm. The distance from Loretta's home to her aunt's house is 5.3×10^7 cm. Which sentence is correct?

- A. Loretta lives closer to her grandmother than to her aunt.
- B. Loretta lives closer to her aunt than to her grandmother.
- C. Loretta lives farther away from her grandmother than from her aunt.
- D. Loretta lives the same distance from her aunt and from her grandmother.

- 7) Neptune is one of the larger planets, with a mass of approximately 1×10^{26} kg. Mercury is the smallest planet, with a mass that is approximately 3×10^{23} kg. About how many times larger than Mercury is Neptune?

- 8) What is the solution to $x + 11 + 2x = 7 + 3x + 4$?

- 9) Below is a system of linear equations.

$$3x + y = 27$$

$$-x + 3y = 11$$

Solve by graphing.

- 10) Solve using substitution.
- $$5x + 2y = 24$$
- $$x = -3y + 10$$

- 2) In 2012, with approximately 8.1×10^6 people, New York City is the most populous city in the United States. Los Angeles, California, is the second most populous city in the United States, with about 3.8×10^6 people. Approximately, what is the population of the two most populous cities in the United States combined?

- 3) Which term is equivalent to $\frac{2^{-3}}{2^2}$?
Simplify.