

Math 0090 Lab Worksheet #9

Objective: Solve #1 - #10 problems involving Systems of Equations. #11 through #15 are review problems.

- Solve this system for x .
$$3x - 2y = 5$$
$$5x + 4y = 12$$
 - 2
 - 2
 - There is no solution
 - There are an infinite number of solutions
- Solve this system for J .
$$J = 3K - 7$$
$$3J + 2K = 23$$
 - 4
 - 5
 - There is no solution
 - There are an infinite number of solutions
- Solve the system.
$$3x + y = - 2$$
$$6x + 2y = - 2$$
 - 2
 - 1
 - There is no solution
 - There are an infinite number of solutions
- Solve the system.
$$4G - 2H = 6$$
$$2G - H = 3$$
 - $-\frac{3}{2}$
 - $\frac{3}{2}$
 - There is no solution
 - There are an infinite number of solutions

5. The difference between two numbers is 22. The sum of these two numbers is -2 . Find the larger number.
- A. -12
 - B. 10
 - C. 12
 - D. 20
6. A rectangle has a perimeter of 420 meters. Its length is 30 meters longer than its width. Find its width.
- A. 90 meter
 - B. 180 meter
 - C. 195 meter
 - D. 390 meter
7. Jose Ramirez invested \$6500 in two bank accounts, one paying 4% simple interest and the other paying 6%. If his annual interest from the two accounts is \$344, how much did he invest at 6% ?
- A. \$2,300
 - B. \$2,400
 - C. \$3,200
 - D. \$4,200
8. A 10% alcohol solution is mixed with a 50% solution to get 100 liters of a 22% solution. How many liters of the 50% solution are used?
- A. 30 liters
 - B. 50 liters
 - C. 60 liters
 - D. 70 liters

9. Six bags of brand X fertilizer plus 4 bags of brand Y fertilizer will cover 2400 square feet, while 5 bags of brand X fertilizer plus 2 bags of brand Y fertilizer will cover 1600 square feet. How many square feet can be covered with 3 bags of brand X fertilizer plus 3 bags of brand Y fertilizer ?
- A. 1200 square feet
B. 1400 square feet
C. 1500 square feet
D. 3600 square feet
10. A boy has \$5 and \$10 bills worth \$95. The total number of bills is 12. Find how many \$5 bills he has.
- A. 2
B. 3
C. 5
D. 7
11. What is the slope of a line that has the equation $5x - 2y = 7$?
- A. - 5
B. $-\frac{5}{2}$
C. $\frac{2}{5}$
D. $\frac{5}{2}$
12. A tiny particle is rectangular in shape. The length of the particle is 3.0×10^{-4} mm and the width is 1.5×10^{-4} mm. The area of the particle is
- A. 4.5×10^{-16} mm²
B. 4.5×10^{-8} mm²
C. 12.0×10^{-4} mm²
D. 4.5×10^{16} mm²

13. One factor of $x^2 - 2x - 24$ is
- A. $(x - 24)$
 - B. $(x - 4)$
 - C. $(x - 6)$
 - D. $(x + 6)$
14. What is the volume of a cylindrical tank that has a height of 8 meters and a radius of 3 meters ?
- A. $56\pi \text{ m}^3$
 - B. $72\pi \text{ m}^3$
 - C. $144\pi \text{ m}^3$
 - D. $192\pi \text{ m}^3$
15. A donation of \$8000 has been made to a scholarship fund. If the fund earns 10% interest annually, how much money will be in the fund after one year?
- A. \$80
 - B. \$800
 - C. \$8080
 - D. \$8800