

1. What value of x satisfies the equation below?

$$-2(x + 5) = 12$$

2. What value of x satisfies the equation below?

$$\frac{1}{3}(x - 4) = 3x + \frac{5}{2}$$

3. What value of y satisfies the system of equations below?

$$\begin{cases} x + y = 2 \\ x - y = 8 \end{cases}$$

4. What is the x -intercept of the line below?

$$y = \frac{2}{3}x - 5$$

5. What is the equation of the line that passes $(2, 4)$ and $(-3, -2)$?

6. What is the equation of the line that is perpendicular to $3x - 4y = 7$ and passes $(0, -3)$?

7. If the values of x, y satisfy the system of equations below, what is the value of $x - y$?

$$\begin{cases} x + 3y = 23 \\ 4x - 8y = 7 \end{cases}$$

8. If Simon's farm has total 11 of ducks and sheep and the sum of their leg is 28. How many sheep are in the farm?

9. If Isla has a bag containing 35 dimes and quarters. The total value of these coins is \$5.45. What is the number of quarters she has?

10. What is the factored form of the expression below?

$$12x^2 - 50x - 18$$

11. What is the sum of all values of x of the equation below?

$$x^2 - 5x - 24 = 0$$

12. What is the 33rd term of the sequence below?

$$12, 15, 18, 21, 24, 27, \dots$$