

- Consider the number 6.
 - List all factors of 6.
 - Find the average of all factors of 6.
- A, B, and C worked together for a week. Together they earned \$1500. They split the earnings into ten equal shares. A took 4 shares, B and C took 3 shares each. How much money did they each take?
- Perform the following division. Present the quotient and the remainder. $99 \div 13 =$
- Perform the following operations. Show all steps.
 - $18 - 7 + 1$
 - $18 \div 6 \cdot 3$
 - $5 \cdot (50 - 3(4(2 \cdot 3 + 1) - 12) + 3)$
 - $75 \div (2^4 - 1^4) \cdot 4^2 + 3^1 \cdot 2^3$
 - $\frac{(3^2 - 12 \div 4)^2 + 5^2 - 1}{2^5 - 2(1^4 - 3 \cdot 5)}$
- Evaluate $\frac{3xy + 2x^2 - 2y^2}{x + 2y}$ if
 - $x = 2$ and $y = -3$
 - $x = -1$ and $y = -2$
 - $x = -6$ and $y = 3$
- Simplify each of the following algebraic expressions.
 - $(3x^2 - 5x + 8) + (-3x^2 - 5x + 12)$
 - $(3x^2 - 5x + 8) - (-3x^2 - 5x + 12)$
 - $3(x - 5) - 4(x - 2)$
 - $5(2a + 1) - 2(2 - a) - 7(a + 8)$
 - $(x - 5)(x - 2)$
 - $(2x - 1)(x + 3)$
 - $\sqrt{45} - 3\sqrt{80} + \sqrt{500}$
 - $\frac{\sqrt{600}}{\sqrt{24}}$
- Consider the equation $3x^3 - 7x + 18 = -x + 3(x^2 + 6)$.
 - Is 2 a solution of the equation?
 - Is -2 a solution of the equation?
- Consider the inequality $3x^3 - 7x + 18 \leq -x + 3(x^2 + 6)$
 - Is 1 a solution of the inequality?
 - Is -1 a solution of the inequality?
- Consider the system of linear equations.

$$\begin{cases} 2x + 3y = 1 \\ 5x + y = -17 \end{cases}$$

Without solving the system, determine which of the following pairs is a solution for the system.

- $x = 8$ and $y = -5$
- $x = -4$ and $y = 3$
- $x = 5$ and $y = -3$