

Name _____

Mixed Reasoning, Operations, and Equations

Directions: Each problem below is a different kind of challenge!
Solve carefully and show all your work. Remember to check your answers.

1) Hidden Equation: $(4x + 8) \div 2 = 16$ ($x = \underline{\hspace{2cm}}$)

2) Compare Expressions: $A = (10 + 2) \times 3$ $B = 10 + (2 \times 3)$ Which is greater?

3) Find the Missing Number: $6 \times \underline{\hspace{1cm}} + 4 = 46$

4) Pattern Puzzle: $2 \rightarrow 5$ $3 \rightarrow 8$ $4 \rightarrow 11$ What does $6 \rightarrow ?$

5) True or False: $(20 \div 5) + 6 \times 2 = 24$

6) Riddle Equation: $(3x - 4) \times 2 = 18$ ($x = \underline{\hspace{2cm}}$)

7) Two-Step Story Problem: A miner collects 7 gems each day for 6 days, then gives 8 gems to a friend. How many gems does he still have?

8) Add Parentheses to Make It True: $8 + 12 \div 3 \times 2 = 16$

9) Balance the Equation: $12 + x = 8 + 10$ ($x = \underline{\hspace{2cm}}$)

10) Reverse Operations: Start with 4. Multiply by 5, add 8, divide by 2. What number do you end with?

11) Reasoning Puzzle: If $5x - 10 = 25$, what is $x + 5$?

