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PEDMAS

Order of Operations

Here's a breakdown of each letter in PEMDAS:

- **P is for Parentheses:** They come first! Always tackle any calculations inside parentheses before moving on. Parentheses can group addition, subtraction, multiplication, or even division.
- **E is for Exponents:** These little superscript numbers tell you how many times to multiply a base number by itself. Simplify all exponents before moving on. Sometimes a ^ (carrot is used).
- **M is for Multiplication:** Once parentheses and exponents are out of the way, it's multiplication time! Perform all multiplications from left to right in the order they appear.
- **D is for Division:** Division follows the same rule as multiplication. Solve all division problems from left to right.
- **A is for Addition:** Now that multiplication and division are done, we can add! Again, work your way from left to right, adding each term in the expression.
- **S is for Subtraction:** We tackle any remaining subtractions, working from left to right (reading direction).

Here's an example using PEMDAS with explanations for each step:

Example 1: Solve the equation: $8 + (3 \times 2) \div 2 = ?$

PEMDAS Breakdown:

1. **Parentheses:** We tackle what's inside the parentheses first. $3 \times 2 = 6$.
2. **Multiplication and Division (from left to right):** Since multiplication and division have equal weight in PEMDAS, we go from left to right. $8 + (6) \div 2$.
3. **Division** :$8 + 6/3 = 8 + 3$
4. **Addition and Subtraction:** We finally add $8 + 3$ to get *11*.

Example 2: Solve the equation: $2 + (12 \div 2) \div (5 - 3) = ?$

First parentheses

- **Parentheses**: We tackle what's inside the parentheses first.$(12 \div 2) \div (5 - 3) = 6/2$ Second parentheses
- **Exponents**: We work the exponent 2^3 or $2 * 2 * 2 = 8$.
- **Rewrite the problem**: $8 + 6/2$ and work multiplication and Division (from left to right). Since multiplication and division have equal weight in PEMDAS, we go from left to right to do 6/2 first.
- **Addition and Subtraction:** We finally add 8 and 3 to get *11*.

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Order of Operations

Solve the equations using the order of operations.

1) $3 + 2 \times 5 =$

2) $4 + 3 + 8 \times 3 =$

3) $6 - 2 \times 2 =$

4) $6(5 - 1) \div 2 =$

5) $10 \div (5 - 3) =$

6) $9 \div (4 - 1) + 5 =$

7) $(4 \times 3) \div 6 =$

8) $8 + 4 \div 2 \times 3 =$

9) $24 \div 6 \times 2 - 2 =$

10) $20 - 7(3 - 1) =$

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Order of Operations

Solve the equations using the order of operations.

11) $3 \times 2 + 5 =$

12) $(4 + 3) \times 8 \div 2 =$

13) $(6 - 2) \times 2 =$

14) $6(-1 + 5) \div (5 - 3) =$

15) $10 \div 5 - 3 =$

16) $3^2 \div (8/2 - 1) + 5 =$

17) $(2^2 \times 3) \div (3 \times 2) =$

18) $2^3 + 2^2 \div 2 \times 3 =$

19) $8 \times 3 \div 6 \times 2 - 2 =$

20) $4 \times 5 - 7(3 - 1) =$

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Answers

Order of Operations

Solve the equations using the order of operations.

$3 + 2 \times 5 = 13$

$4 + 3 + 8 \times 3 = 30$

$6 - 2 \times 2 = 2$

$6(5 - 1) \div 2 = 12$

$10 \div (5 - 3) = 5$

$9 \div (4 - 1) + 5 = 8$

$(4 \times 3) \div 6 = 2$

$8 + 4 \div 2 \times 3 = 14$

$24 \div 6 \times 2 - 2 = 6$

$20 - 7(3 - 1) = 6$

Name: Date:

Order of Operations

Solve the equations using the order of operations.

Answers

11) $3 \times 2 + 5 = 11$

12) $(4 + 3) \times 8 \div 2 = 28$

13) $(6 - 2) \times 2 = 8$

14) $6(-1 + 5) \div (5 - 3) = 12$

15) $10 \div 5 - 3 = -1$

16) $3^2 \div (8/2 - 1) + 5 = 8$

17) $(2^2 \times 3) \div (3 \times 2) = 2$

18) $2^3 + 2^2 \div 2 \times 3 = 14$

19) $8 \times 3 \div 6 \times 2 - 2 = 6$

20) $4 \times 5 - 7(3 - 1) = 6$