

Assignment: Applying Order of Operations

Directions: Use the order of operations to simplify the expressions. Show each step in your work. Describe each step in words. See the example below:

Example: Simplify the expression $(3 + 6 \div 2)^3$.

- Simplify within parentheses first, division before addition: $(3 + 6 \div 2)^3 = (3 + 3)^3$
- Within the parentheses, perform addition: $(3 + 3)^3 = 6^3$
- Apply the exponent: $6^3 = 216$

1. Simplify the expression $7 - 2(2 + 5) - 8$.

2. Simplify the expression $15 + 3 - 2(2 - 1)$.

3. Simplify the expression $3[9 - (2 + 3)]^2$.

4. Simplify the expression $225 \div (7 - 4)^2 - 15$.

5. Simplify the expression $200 - 5(4 - 1)^3$.