

Order of Operations

Please Excuse My Dear Aunt Sally

Objectives: 1. TSW use order of operations to simplify expressions

P - **Parenthesis**

E - **Exponents**

M - **Multiplication** } From left to right

D - **Division**

A - **Addition** } From left to right

S - **Subtraction**

Examples

$$1. \underline{(5 \bullet 4) - 18 \div 2}$$

$$\begin{array}{r} \underline{20 - 18 \div 2} \\ \underline{20 - 9} \\ \hline 11 \end{array}$$

$$2. \underline{6^2 \div 4 - 2 \bullet 3}$$

$$\begin{array}{r} \underline{36 \div 4 - 2 \bullet 3} \\ \underline{9 - 2 \cdot 3} \\ \underline{9 - 6} \\ \hline 3 \end{array}$$

$$3. 2(\underline{4 + 10}) \div 7 + 5^2 \bullet 2$$

$$\begin{array}{r} \underline{2 \cdot 14 \div 7 + 5^2 \cdot 2} \\ \underline{2 \cdot 14 \div 7 + 25 \cdot 2} \\ \underline{28 \div 7 + 25 \cdot 2} \\ \underline{4 + 25 \cdot 2} \\ \underline{4 + 50} \\ \hline 54 \end{array}$$

$$4. 8 + 2 \bullet 15 - 60 \div 3$$

$$5. 6 \div 2 + 14 \div 7 \bullet 12$$

$$6. 8 + (9 \bullet 6 + 8) \div 2 - 13 \bullet 3$$

$$\begin{array}{r} \underline{8 + (54 + 8) \div 2 - 13 \cdot 3} \\ \underline{8 + 62 \div 2 - 13 \cdot 3} \\ \underline{8 + 31 - 13 \cdot 3} \\ \underline{8 + 31 - 39} \\ \hline 0 \end{array}$$