

## ORDER OF OPERATIONS

The acronym often taught for the Order of Operations is PEMDAS.

P stands for \_\_\_\_\_

E stands for \_\_\_\_\_

M stands for \_\_\_\_\_  
D and \_\_\_\_\_

A stands for \_\_\_\_\_  
S and \_\_\_\_\_

**NOTE:** multiplication and division **must** be done from **Left to Right**, whichever comes first. Then addition and subtraction **must** be done from **Left to Right**, whichever comes first.

↳ example 1:

$$8 - 5 + 1$$

$$8 - 5 + 1$$

$$= \underline{\quad} + 1 \quad \leftarrow (8 - 5 \text{ must be evaluated FIRST!})$$

$$= \underline{\quad}$$

↳

EXAMPLE 2:

$$8 - (5 + 1)$$

$$8 - (5 + 1)$$

$$= 8 - \underline{\quad}$$

$$= \underline{\quad}$$

← (The parenthesis must be  
evaluated FIRST!)

↳

EXAMPLE 3:

Evaluate  $3^2 - (9 - 8)^{23}$

$$= 3^2 - (1)^{23}$$

(parenthesis first)

$$= 9 - 1$$

(then exponents)

$$= 8$$

(then subtraction)

↳

EXAMPLE 4:

Evaluate  $7 + 3[8 - 3(2 - 0)]$

$$7 + 3[8 - 3(2 - 0)]$$

$$= 7 + 3[8 - 3(2)]$$

$$= 7 + 3[8 - 6]$$

$$= 7 + 3(2)$$

$$= 7 + 6$$

$$= 13$$

↳

EXAMPLE 5:

What is 6 times the sum of 4 and 1?

First we must write the word statement as a math statement.

"6 times..."  $\Rightarrow$  \_\_\_\_\_

"...the sum of 4 and 1"  $\Rightarrow$  \_\_\_\_\_

So the corresponding math statement is:

= \_\_\_\_\_

= \_\_\_\_\_

↳

EXAMPLE 6:

What is 8 subtracted from the quotient of 35 and 5?

"... the quotient of 35 and 5"  $\Rightarrow$  \_\_\_\_\_

"8 subtracted from..."  $\Rightarrow$  \_\_\_\_\_

So the corresponding math statement is:

= \_\_\_\_\_

= \_\_\_\_\_

## ORDER of OPERATIONS Practice Problems

1. Evaluate  $9 - 4 + 7$

2. Evaluate  $9 - (4 + 7)$

3. Evaluate  $4^2 - (13 - 10)^2$

4. Evaluate  $3 + 4 [17 - 2(5 - 1)]$

5. What is 4 times the difference of 9 and 6?

6. What is 9 subtracted from the product of 5 and 2?