

## Warm Up

Does  $5 + 2(3) = 11$  OR  $5 + 2(3) = 21$  ?

Which one of the above equations is evaluated correctly?

$$\begin{array}{r} 5 + 2(3) \\ \hline 5 + 6 = 11 \end{array}$$



Order of Operations



*Please excuse my dear Aunt Sally*

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Why do your teachers  
write it this way???

# Order of Operations

1. Parentheses
2. Exponents
3. Multiplication or  
Division  $\xrightarrow{\text{L to R}}$
4. Addition or  
Subtraction  $\xrightarrow{\text{L to R}}$



Underline the first expression to evaluate in each problem

$$5 + \underline{(8 \times 5)} + 72 \div 8$$

$$5 + 9 + 10 + \underline{16 \div 4}$$

$$(7 + \underline{90 \div 9}) + 56 \div 7$$

$$10 - 7 + \underline{12 \div 6} + 60 \div 6$$

$$6 - 4 + \underline{54 \div 6} \times 3$$

$$8 + \underline{(90 \div 9 \times 5)} \times 6$$

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# Order of Operations

1. Parentheses X
2. Exponents X
3. Multiplication or Division  $\xrightarrow{\text{L to R}}$
4. Addition or Subtraction  $\xrightarrow{\text{L to R}}$

$$4 + 54 \div 6$$

$$\downarrow \quad \underline{\quad}$$

$$4 + 9$$

$$13$$

$$10 + (6 \times 5)$$

$$10 + 30$$

$$40$$

TN VaR

$$5 + 20 \div 4$$

$$5 + 5 = 10$$

Cece

$$(3 + 8) + 42 \div 7$$

$$11 + \underline{42} \div \underline{7}$$

$$11 + 6$$

$$17$$

## Order of Operations

1. Parentheses
2. Exponents
3. Multiplication or  
Division  $\xrightarrow{\text{L to R}}$
4. Addition or  
Subtraction  $\xrightarrow{\text{L to R}}$



1 a. $8 \times 2 + 3 + 1$	1 b. $9 + (8 + 6) \times 6$
2 a. $7 - (7 - 6) - 4$	2 b. $(8 + 1 + 5) \times 8$
3 a. $8 \times 6 + (7 + 3)$	3 b. $(7 + 9) + 6 \times 6$



1)  $40 - 2(6 - 4)^2$

$$40 - 2(\overline{2})^2$$

$$40 - 2(4)$$

$$40 - 8$$

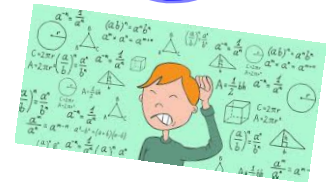
$$\textcircled{32}$$

2)  $[3(-2)^2 - 2(-3)^2]^3$

$$\approx 3(-2)^2 - 2(-3)^2$$

$$[3(4) - 2(9)]^3$$

$$12 - 18 = -6 \quad \textcircled{-216}$$



3)  $2(20 - 32 + 1) - (42 \div 2 \times 3)$

$$-12 + 1$$

$$=$$

$$2 \times -11$$

$$= -22 - 63$$

$$21 \times 3$$

$$63$$

$$\textcircled{-85}$$

$$40 - 2(6 - 4)^2$$

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