

Warm up:

What is the order of operations and how do you use it?

Order of Operations

Parenttheses/~~G~~rouping

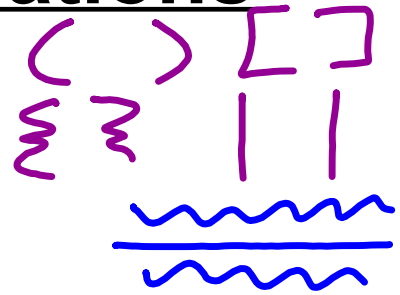
Exponents

Multiplication

Division

Addition

Subtraction



@ the same
time $L \rightarrow R$

@ the same

time $L \rightarrow R$

$$6 + |2 + 5|$$

$$9 - 3 + 4$$

$$6 + 4$$

$$\textcircled{10}$$

$$(1 + 11)^2 \div 3$$

$$(12)^2 \div 3$$

$$144 \div 3$$

$$\textcircled{48}$$

$$6 + 3(7 - 2)$$

$$6 + 3(5)$$

$$6 + 15$$

$$\textcircled{21}$$

$$12^2 = 12 \cdot 12$$

$$\begin{array}{r} 48 \\ 3 \overline{)144} \\ \underline{-120} \\ 24 \\ \underline{-24} \\ 0 \end{array}$$

$$9 + (9 - 8 + 3)^4$$

$$9 + (1 + 3)^4$$

$$9 + (4)^4$$

$$9 + 256$$

$$\textcircled{265}$$

$$4^4 = 4 \cdot 4 \cdot 4 \cdot 4$$

$$\begin{array}{r} 2 \quad 16 \\ \times 4 \\ \hline 64 \end{array}$$

$$\begin{array}{r} 1 \quad 64 \\ \times 4 \\ \hline 256 \end{array}$$

$$7.2 \times 10^2$$

$$7.2 \times 100$$

$$\textcircled{720}$$

1) $(4 + 2) \cdot (7 + 4)$

2) $(52 \div 4) + 5^3$

3) $3 \times 2^2 + 24 \div 8$

4) $6 - 2(3 + 4)$

5) $5 \times 4^2 - 3 \times 2$

6) $(8 - 3 \times 2) \times 6$

$$1) (4 + 2) \cdot (7 + 4)$$

$$6 \cdot 11$$
$$\textcircled{66}$$

$$2) (52 \div 4) + 5^3$$

$$13 + 5^3$$

$$13 + 125$$

$$138$$

$$5^3 = 5 \cdot 5 \cdot 5$$

$$3) 3 \times 2^2 + 24 \div 8$$

$$3 \times 4 + 24 \div 8$$

$$12 + 3$$

$$\textcircled{15}$$

$$4) 6 - 2(3 + 4)$$

$$6 - 2(7)$$

$$6 - 14$$

$$\textcircled{-8}$$

$$5) \quad 5 \times 4^2 - 3 \times 2$$

$$5 \times 16 - 3 \times 2$$

$$80 - 3 \times 2$$

$$80 - 6$$

$$74$$

$$6) (8 - 3 \times 2) \times 6$$

$$(8 - 6) \times 6$$

$$2 \times 6$$

$$12$$