

NOTES.

Order of Operations

B $\xrightarrow{1}$ Brackets

E $\xrightarrow{2}$ Exponents

D $\xrightarrow{3}$ Division
M $\xrightarrow{3}$ Multiplication

A $\xrightarrow{4}$ Addition
S $\xrightarrow{4}$ Subtraction

} in the order they appear from left to right.

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Try These:

$$36 \div 9 - 8 + 21 \div 3 =$$

$$\begin{array}{r} \underbrace{36 \div 9} - 8 + \underbrace{21 \div 3} \\ 4 - 8 + 7 \\ \underbrace{-4 + 7} \\ 3 \end{array}$$

$$(2 \times 3) + (14 \div 7) =$$

$$\begin{array}{r} \underbrace{2 \times 3} + \underbrace{14 \div 7} \\ 6 + 2 \\ 8 \end{array}$$

$$(2 + 4)^2 + (13 + 24 \div 2) =$$

$$\begin{array}{r} \underbrace{(2 + 4)}^2 + \underbrace{(13 + 24 \div 2)} \\ 6^2 + (13 + 12) \\ 6^2 + 25 \\ \underbrace{36 + 25} \\ 61 \end{array}$$

$$(-11) \cdot 8 + (-6) - (-7) =$$

$$\begin{array}{r} \underbrace{(-11) \cdot 8} + (-6) - (-7) \\ -88 + (-6) - (-7) \\ \underbrace{-94 - (-7)} \\ -87 \end{array}$$

Adding and Subtracting with Powers

a) $3^3 + 2^3$

$$\begin{array}{r} 27 + 8 \\ \hline 35 \end{array}$$

b) $3 - 2^3$

$$\begin{array}{r} 3 - 8 \\ \hline -5 \end{array}$$

c) $(3 + 2)^3$

$$\begin{array}{r} 5^3 \\ \hline 125 \end{array}$$

d) $(2 \times 4)^2 - 5^2$

$$\begin{array}{r} 8^2 - 5^2 \\ \hline 64 - 25 \\ \hline 39 \end{array}$$

Multiplying and Dividing with Powers

a) $[2 \times (-3)^3 - 6]^2$

$$[2 \times (-27) - 6]^2$$

$$[-54 - 6]^2$$

$$[-60]^2$$

$$3600$$

b) $[(18^2 + 5^2)^0] \div (-1)^3$

$$1 \div (-1)^3$$

$$1 \div (-1)$$

$$-1$$