

October 15, 2015

Warm-Up



1. Evaluate each of the following:

A. -3^4

$$- (3 \times 3 \times 3 \times 3)$$

-81

B. -2^0

-1

C. $-(-4)^3$

$$- (-4 \times -4 \times -4)$$

64

D. $-(-4)^0$

-1

2. Express each of the following using powers of 10.

$$3 \times 10^4$$

$$5 \times 10^5 + 2 \times 10^3 + 3 \times 10^0$$

A. 32 458

$$30000 + 2000 + 400 + 50 + 8$$

$$3 \times 10^4 + 2 \times 10^3 + 4 \times 10^2 + 5 \times 10^1 + 8 \times 10^0$$

B. 500 203

3. Write in standard form

$$4 \times 10^6 + 3 \times 10^3 + 2 \times 10^0 + 1 \times 10^4$$

$$4 \times 10^6 + 1 \times 10^4 + 3 \times 10^3 + 2 \times 10^0$$

$$4 \ 013 \ 002$$

Homework Questions???





Section 2.3 Orders of Operations with Powers

BEDMAS



Orders of operation

[BEDMAS]

B E D M A S

MINDS UNDER CONSTRUCTION

A. $-(3 + 4 - 6) \times 5 - (2)$

$$-(1) \times 5 - (2)$$

$$-5-2$$

$$\textcircled{-2}$$

B. $(-5) - [3 - 6 \times 5]$

$$-5 - (3 - 30)$$

$$-5 - (-25)$$

$$\textcircled{22}$$



c. $(4+3) \times 5 - 2$

$$(7) \times 5 - 2$$

$$35-2$$

$$\textcircled{33}$$

d. $\frac{17 - 5 \times 2}{4 - -3}$

$$\frac{17-10}{7}$$

$$\frac{7}{7} = \textcircled{1}$$

Find the solution

BEDMAS



A. $3^4 + 2^2$

$$\begin{array}{r} 81 + 4 \\ \hline 85 \end{array}$$

B. $3 - 2^3$

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

C. $(3 + 2)^3$

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

D. $(5-9)^4$

$$\begin{array}{r} (-4)^4 \\ 256 \end{array}$$

~~4~~

What is the answer???

$$\begin{array}{cccc} -748518 & -198 & \text{BEDMAS} \\ \text{13824} & 21000 & -728 \end{array}$$



A. $[2 \times (-3)^2 - (-6)]^3$ B. $(18^0 + 5^0)^2 \div (-2)^3$

$$\begin{aligned} & [2 \times 9 - (-6)]^3 \\ & [18 - -6]^3 \\ & [24]^3 \end{aligned}$$

$$\begin{aligned} & (1+1)^2 \div -8 \\ & (2)^2 \div -8 \end{aligned}$$

$$4 \div -8$$

$$-0.5$$



Let's Try a few more...

C

$$\cancel{-3} \times (30 + 4) - 7^2$$

$$\begin{array}{r} -151 \\ -158 \\ \hline 53 \end{array}$$



$$-3 \times 34 - 49$$

$$-102 - 49$$

$$\begin{array}{r} -151 \\ \hline \end{array}$$



B. $0 \times 15^2 \times (400 + 21) \div 19^2 + 5$

BEDMAS

$$-(3^3 + 4^2)^0 - 4[(-2)]^3$$

376
24 **31** (circled)
40
-33
75
511

$$-(27+16)^0 - 4(-8)$$
$$-(43)^0 - 32$$
$$-1 - 32$$

(31) (circled)



$$[(-4)^0 \times 10]^6 \div (15 \cdot 10)^2$$

200 000
40 000

$$[1 \times 10]^6 \div (5)^2$$

$$[10]^6 \div 25$$

$$1000\ 000 \div 25$$

40 000



$$(-2)^4 \quad -2^4$$



Classwork/Homework

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3,4,5,6 , 10 [a]

3.a) $\frac{3^2 + 1}{9 + 1}$

Answers
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