October 5,2018

Warm-Up

1. Evaluate each of the following:

A. -3^4 B. -2^0 C. $-(-4)^3$ D. $-(-4)^0$

-81 -1 64 -1

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

A. 32 458

$30\,000 + 2000 + 400 + 50 + 8$

$3\times10^4 + 2\times10^3 + 4\times10^2 + 5\times10^1 + 8\times10^0$

B. 500 203

$5\times10^5 + 2\times10^2 + 3\times10^0$

3. Write in standard form

$2\times10^6 + 4\times10^0 + 3\times10^3 + 7\times10^5$

2703004

2 703 004

Section 2.3 Orders of Operations with Powers

BEDMAS

order they appear

order they appear

Orders of operation [BEDMAS]

A. -(3 + 4 - 6) x 5 - (2)

-(1)x5-2

-5-2

-7

B. (-5) - [3 - 6 x 5]

-5-[3·30]

-5--27

22

Find the solution

BEDMAS

A. $3^4 + 2^2$

$81 + 4$

85

B. $3 - 2^3$

$3 - 8$

-5

C. $(3 + 2)^3$

$(5)^3$

125

D. $(5-9)^4$

$(-4)^4$

256

$-4 \cdot -4$

-256

BEDMAS

What is the answer???

A. $[\,2 \times (-3)^2 - (-6)]^3$

$[2 \times 9 - (-6)]^3$

$[18 - -6]^3$

$[24]^3$

13824

B. $(18^0 + 5^0)^2 \div (-2)^3$

$(1+1)^2 \div -8$

$(2)^2 \div -8$

$4 \div -8$

-0.5

Let's Try a few more...

C. $-3 \times (30 + 4) - 7^2$

-151 ~~-53~~ ~~-109~~

$-3 \times (34) - 49$

$-102 - 49$

-151

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

BEDMAS

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

$-(27+16)^0 - 4(-8)$

$-(43)^0 - -32$

$-1 - -32$

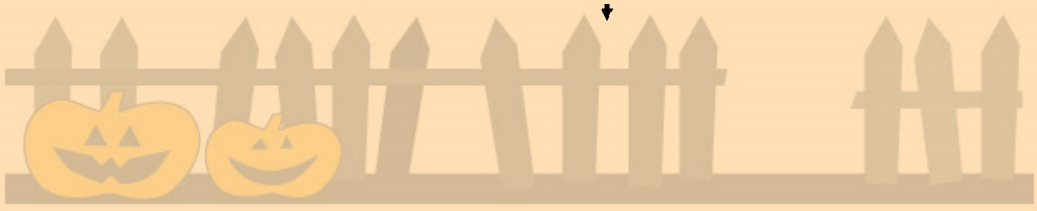
31

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

$-(1) - 4(-8)$

$-1 - -32$

31



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

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

$$(10)^6 \div 25$$

$$1\,000\,000 \div 25$$

$$40\,000$$

$(-2)^4 - 2^4$

$16 - 16$

0

$2^2 - 4(-3^4)$

$4 - 4 \times -81$

$4 - -324$

328

$4 - 4(81)$

.332
0
328.
.320
-81

Classwork/Homework

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3,4,5

3.a) $3^2 + 1$

$9 + 1$

10

Answers

#3 a) 10 e) 8 i) -14

b) 8 f) 0 j) -12

c) 16 g) 36

d) 4 h) 4

#4. a) 40 e) -200

b) 50 f) -10

c) 1000 g) -8

d) 100 h) 1

#5 a) 0 e) -8

b) -1 f) 1

c) 35 g) -64

d) 125 h) 8

Worksheet to pass in...