Warm-Up October 28, 2019

use exponent rules!

BEDMAS

Simplify then evaluate

$(3^2 \times 4^2)^2 - (4^4 \div 4^2)^2$

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

$3^4 \times 4^4 - 4^4$

$81 \times 256 - 256$

$20736 - 256$

20480

Powers and Exponent Laws
Test Thursday

1. Write the product as a power then evaluate

   - (3 x 3 x 3 x 3) $-3^4 = -81$

2. Predict the sign

   A. $-(-2)^5$ (+) B. $(-4^2)^4$ (+)

3. Write each number as a power of 10

A. 34 502 Expanded form $30\,000 + 4000 + 500 + 2$

Power of 10 $3 \times 10^4 + 4 \times 10^3 + 5 \times 10^2 + 2 \times 10^0$

B. 7 002 $7 \times 10^3 + 2 \times 10^0$

4. Evaluate

A. $[3 \times -2^4 - 4]^2$

$[3 \times -16 - 4]^2$

$(-48 - 4)^2$ $(-52)^2$ 2704

B. $(-4)^2 - 3 + (-2)^4 - 1^5 + 1^0$

$16 - 3 + 16 - 1 + 1$

$13 + 16 - 1 + 1$

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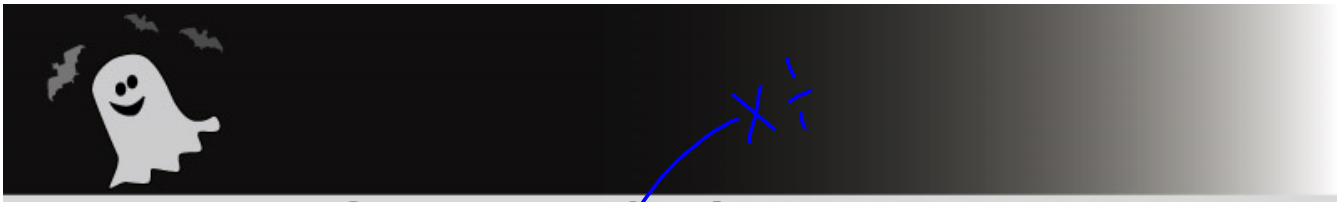
c) $10(3 + -4)^2 + -3^2$

5. Simplify [follow exponent laws]

$5^6 \times 5^8 \div 5^9 + 4^3 \times 4^0$

$5^{6+8-9} + 4^{3+0}$

$5^5 + 4^3$



6. Simplify/Evaluate

$$(7^2 - 4^3)^4 \times (4^8 \div 4^7)^2 + 3^2$$

$(7^2-4^3)^4 \times (4^1)^2 + 3^2$

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

$(49-64)^4 \times 16+9$

$(-15)^4 \times 16+9$

$50625 \times 16+9$

$810000+9$

810009

7. Simplify then evaluate

$$[(-2)^5 \div (-2)^4]^3 - [(-5)^2 \times (-5)^3]^0$$

$((-2)^1)^3 - ((-5)^5)^0$

$(-2)^3 - (-5)^0$

$-8 - 1$

-9

$(-2)^{15} \div (-2)^{12} - (-5)^{0 \times 5}$

$(-2)^3 - (-5)^0$

Review Questions from Textbook...check the questions off as you go AND check your answers!

Extra practice

* Page 90 1, 2,3,7

* Page 312 #2

page 85 simplified answers.notebook