Warm Up
Grade 9

1) Write the following as a repeated multiple and evaluate

a) $(-3)^5$ $(-3)(-3)(-3)(-3)(-3) = -243$

b) $-(-2)^0$ $(-1)(1) = -1$

c) $-(-2)^6$ $-1(-2)(-2)(-2)(-2)(-2)(-2) = -64$

d) $-(3)^0(-4)^3$ $(-1)(1)(-4)(-4)(-4) = +64$

2) Write as a power then evaluate

a) $-(2)(2)(2)(-3)(-3)(3)(3)$ $-(2^3)(-3)^2(3)^2 = -648$

b) $(-5)(-5)(4)(4)(4)(4)(4)$ $(-5)^2(4)^5$

3) Write the following as a powers of 10:

a) 68 706 324

$(6\times10^7)+(8\times10^6)+(7\times10^5)+(6\times10^3)+(2\times10^2)+(2\times10)+(4\times10^0)$

25600

4) Write the following in standard form:

a) $(5 \times 10^4) + (9 \times 10^2) + (7 \times 10^1) + (6 \times 10^0)$

$50000 + 900 + 70 + 6$

50976

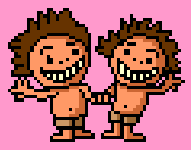
$$\frac{-15+3-13}{3\times 2-7^{0}} = \frac{-25}{5} = -5$$

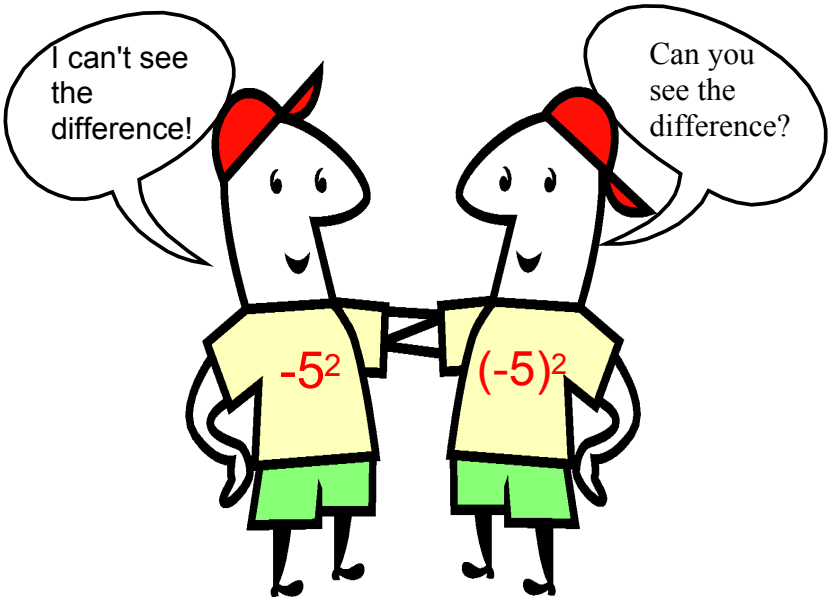
$3 \times 2 - 1$

$6 - 1$

5

Order of Operations with Exponents





$5 - 3^2$

$5 - 9$

$= -4$

$5 + (-3)^2$

$5 + 9$

$= 14$

THERE IS A huge DIFFERENCE!

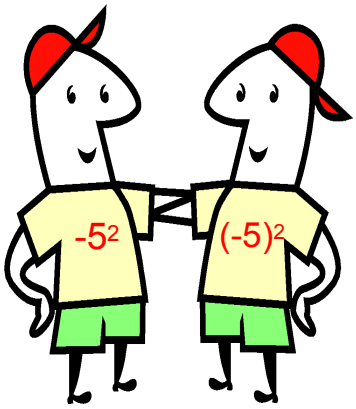
-5^2

$(-1)5^2$

$(-1)25$

-25

There is a negative one being multiplied by the 5^2.



$(-5)^2$

$(-5)(-5)$

25

1. -4^2 -1×4^2 $= -16$

2. $(-3)^2 = 9$

3. $(-2)^3$ $(-2)(-2)(-2)$ $= -8$

BEDMAS

$$[3+(-3)^0-5(3-7)^2]+1$$

$[3+(-3)^0-5(-4)^2]+1$

$[3+1-5(16)]+1$

$[3+1-80]+1$

$[-76]+1 = -75$

BEDMAS

$$-5^2+(4+(-2)^2-3)^3$$

$-5^2+(4+4-3)^3$

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

$-25+125$

100

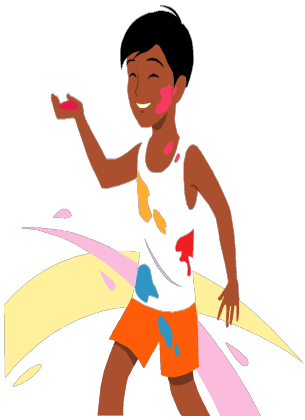
$$[(-4-(-3))^2]^2-(-5^3+2)^3$$

$$[(-1)^2]^2-(-125+2)^3$$

$$[1]^2-(-123)^3$$

$$1+(1860867)$$

$$1860868$$



Lyn has a square swimming pool, 2 m deep with side length 4 m. The swimming pool is joined to a circular hot tub, 1 m deep with diameter 2 m. Lyn adds 690 g of chlorine to the pool and hot tub each week. This expression represents how much chlorine is present per 1 m^3 of water:

$$\frac{690}{2 \times 4^2 + \pi \times 1^3}$$

The suggested concentration of chlorine is 20 g/m^3 of water. What is the concentration of chlorine in Lyn's pool and hot tub? Is it close to the suggested concentration?

$$\frac{690}{2 \times 4^2 + \pi \times 1^3}$$

Class/Homework

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3 (a, c, e)
4 (a, c, e,)
5 (e, g)
8 (a, c, e)
10(a,c,e)
15
16(all) SHOW WORK