

Unit 0: Review – Integers & Rationals [NO CALCULATORS]**0.2 Order of Operations****B** *ackets***E** *xponents***D** *ivision*] as a group left to right**M** *ultiplication*] as a group left to right**A** *ddition***S** *ubtraction*] as a group left to right**Ex. Evaluate:**

a) $3 + 2(-4)$

$= 3 + (-8)$

$= \boxed{-5}$

b) $-2 - 10(-1) \div 2$

$= -2 - (-10) \div 2$

$= -2 + (+5)$

$= \boxed{3}$

c) $(-7 + (-3)) \div (-5) + (-6)$

$= -10 \div (-5) + (-6)$

$= 2 + (-6)$

$= \boxed{-4}$

d) $-3(2 - 5(2 - 8))$

$= -3(2 - 5(-6))$

$= -3(2 + (+30))$

$= -3(32)$

$= \boxed{-96}$

$-3(2 - 5(2 - 8))$

$-3(2 - 5(-6))$

$-3(2 + (+30))$

$-3(32)$

-96

e) $\frac{-3(2+3)}{4(-3)+7}$

$= \frac{-3(5)}{-12+7}$

$= \frac{-15}{-5}$

$= \frac{-15}{-5}$

$= \boxed{+3}$

Exponents

Recall:

$3^2 = 3 \times 3 = 9$

$2^3 = 2 \times 2 \times 2 = 8$

Do brackets matter?

Ex.

$(-4)^2$

vs.

$= -4 \times -4$

$= \boxed{16}$

-4^2

$= -1 \times 4^2$

$= -4 \times 4$

$= \boxed{-16}$

$2(4^2)$

Ex.

$(-3)^3$

vs.

$= -3 \times -3 \times -3$

$= \boxed{-27}$

-3^3

$= -3 \times 3 \times 3$

$= \boxed{-27}$

Ex. Evaluate:

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

$$= 2(3 - 25)$$

$$= 2(-22)$$

$$= \boxed{-44}$$

b) $\underline{-3^2} + \underline{2(4)}$

$$= -9 + 8$$

$$= \boxed{-1}$$