Integers and BEDMAS

Multiplying and Dividing

- When multiplying or dividing integers, check the signs.
  - Same Signs = Positive
  - Different Signs = Negative

Ex/ Calculate.

a) $(-4)(2)$ $= -8$

b) $-12 \div 3$ $= -4$

c) $-16 \div (-4)$ $= 4$

d) $3(7)$ $= 21$

e) $-5(-9)$ $= 45$

f) $-(-5)$ $= 5$ (Actually a negative one!)

g) $(3)(-4)(2)(-1)$ → Work left to right

$= 24$

Adding and Subtracting

- When adding or subtracting expressions with more than 2 integer values, first make sure that there is only one sign between numbers, then either:
  1) Work left to right
  2) Collect the types of like terms (all positives or negatives)

Ex/ Evaluate.

a) $-8 + 4$ $= -4$

b) $7 + (-3)$ opposite signs beside eachother = negative

$= 7 - 3$

$= 4$

c) $21 - (-8)$ same sign = positive

$= 21 + 8$

$= 29$

d) $-7 + (-5) + 1$ Work left to right

$= -7 - 5 + 1$

$= -11$

e) $-9 - 5 - 6 - 12$

$= -32$

f) $-5 + 7 + (-6)$

$= -5 + 7 - 6$

$= -4$

g) $-4 + 5 - (-8) + 11$

$= -4 + 5 + 8 + 11$

$= 20$

Order of Operations

- The order in which you solve a problem DOES MATTER!

Ex/ Evaluate $5^2 + (3 \times 2) - 2 \times 4$.

Inside brackets $= 5^2 + 6 - 2 \times 4$

exponents $= 25 + 6 - 2 \times 4$

multiply $= 25 + 6 - 8$

Add/Sub $= 23$

Where do I start???

B - Brackets
E - Exponents
D - Division
M - Multiplication } Whichever comes first left to right
A - Addition
S - Subtraction } Whichever comes first left to right

Ex/ Evaluate.

a) $27 - 18 \div 6$

$= 27 - 3$

$= 24$

b) $-5(-3)(2) - 4(-5)$

neg x neg = pos

Both multiplying, so can work on at same time

$= 30 + 20$

$= 50$

c) $5 + 6^2 \times 10$

$= 5 + 36 \times 10$

$= 5 + 360$

$= 365$

d) $(-4 + 2) + \dfrac{4 + 16}{50 \div 5}$

top/bottom of fraction act like brackets so do at same time

$= -2 + \dfrac{20}{10}$

$= -2 + 2$

$= 0$

e) $4\left[(32 - 5^2) - 8\right]$

* Work inside bracket first

$= 4[(32 - 25) - 8]$

$= 4[7 - 8]$

$= 4(-1)$

$= -4$

Homework: Handout - Integers and BEDMAS