10.4.2011 Multiplying and Dividing Integers

Do Now:

Change each subtraction problem to the equivalent addition problem and solve.

1. 32 - (-3)
   32 + 3
   35
2. -40 – 66
   -40 + (-66)
   -106
3. 2 – 48
   2 + (-48)
   -46

Inverse Operations Definition: Inverse operations undo each other. Multiplication and division are inverse operations. Addition and subtraction are also inverse operations.

Ex. Since 6÷3 = 2, we know that 2·3 = 6

Rules for Multiplying and Dividing Integers

- Multiplication and division are performed as always with following rules for sign
  - (negative)(negative)=(positive) (negative)÷(negative)=(positive)
  - (positive)(positive)=(positive) (positive)÷(positive)=(positive)
  - (negative)(positive)=(negative) (negative)÷(positive)=(negative)
  - (positive)(negative)=(negative) (positive)÷(negative)=(negative)

Ex. -2(-3) = +6 because 2(3)=6 and (-)(-) = (+)

Ex. $\frac{-48}{8} = -6$ because $\frac{48}{8} = 6$ and $\frac{(-)}{(+)} = (-)$