

September 21, 2011

$$\begin{array}{r} 2 \\ 397 \\ \times 3 \\ \hline 1191 \end{array}$$

$$\begin{array}{r} 14 \\ 3 \\ \hline 42 \end{array}$$

## Warm-Up

1.  $-6 + (-6) + (-6) + (-6) + (-6) = -30$

2.  $397 + 397 + 397 = 1191$

3.  $-14 - 14 - 14 = -42$

4.  $-9.6 - 9.6 - 9.6 - 9.6 = -38.4$

$$\begin{array}{r} 2 \\ 9.6 \\ 4 \\ \hline 38.4 \end{array}$$

## 9/21 - Multiplying/Division Integers

*"Multiplication is repeated addition"*

$$397 + 397 + 397 \quad \text{vs} \quad 3 \cdot (397)$$

Rule: positive x positive = positive

$$-6 + (-6) + (-6) + (-6) + (-6) \quad \text{vs} \quad 5 \cdot (-6)$$

Rule: positive x negative = negative

Use a pattern to determine  $(-2)(-3)$ :

$$-2 \cdot 3 = -6$$

$$-2 \cdot 2 = -4$$

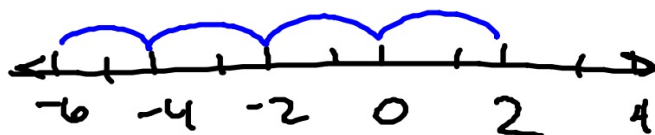
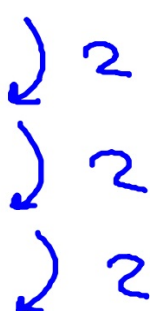
$$-2 \cdot 1 = -2$$

$$-2 \cdot 0 = 0$$

$$-2 \cdot -1 = 2$$

$$-2 \cdot -2 = 4$$

$$-2 \cdot -3 = 6$$



Multiply and Divide are Inverse Operations so...

$$-2 \cdot 3 = -6 \quad \Rightarrow \quad -6 \div 3 = -2$$

$$3 \cdot (-2) = -6 \quad \Rightarrow \quad -6 \div (-2) = 3$$

$$-3 \cdot (-4) = 12 \quad \Rightarrow \quad 12 \div (-4) = -3$$

$$-4 \cdot 2 = -8 \quad \Rightarrow \quad -8 \div 2 = -4$$

***Rules are the SAME!***

## Silly Rules :)

Positive ~ good

Negative ~ bad

Batman - good  
Joker - bad

person . thing

$$+ \cdot + = +$$

$$+ \cdot - = -$$

$$- \cdot + = -$$

$$- \cdot - = +$$

Compute:

$$-12 \cdot 3 = -36$$

$$-12 + 3 = -9$$

$$-12 + 3 = -9$$

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

$$\frac{-6 + 12}{-3} = -2$$

$$\frac{(-3)(-6)}{-2} = -9$$

# Homework:

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# 18-59 all

due Friday