

11.4 (pg. 498) Multiplying Integers (what the 7th grade teachers WANT you to know!)

When positive is listed first:

$n \cdot x$	You would find n groups of x	
$3 \cdot 2$	You would find 3 groups of 2	6 yellow chips
$3 \cdot (-2)$	You would find 3 groups of negative 2	6 red chips

- When negative is listed first...just remember to:

Use the word **NEGATIVE** like **REMOVE**

- Start with lots of zeros (or multiply the numbers as positives and put that many zeros)
- Remove n sets of x
- Get rid of the positives and negatives that cancel out (zeros)
- Find the answer

$-n \cdot x$	You would remove n groups of x	
$-3 \cdot 2$	You would remove 3 groups of 2	equals 6 red chips
$-3 \cdot (-2)$	You would remove 3 groups of negative 2	equals 6 yellow chips

What the 7th grade teachers DON'T WANT you to know (shhhh!)

 \times  =  Ex. $-4 \times -3 = +12$

 \times  =  Ex. $+4 \times +3 = +12$

Same sign for factors, positive product.

 \times  =  Ex. $-8 \times +3 = -24$

 \times  =  Ex. $+5 \times -6 = -30$

Different signs for factors, negative product.

Evaluate $(-2)^2$.

$$\begin{aligned} (-2)^2 &= (-2) \cdot (-2) \\ &= 4 \end{aligned}$$

Evaluate -5^2 .

$$\begin{aligned} -5^2 &= -(5 \cdot 5) \\ &= -25 \end{aligned}$$

Evaluate $(-4)^3$.

$$\begin{aligned} (-4)^3 &= (-4) \cdot (-4) \cdot (-4) \\ &= 16 \cdot (-4) \\ &= -64 \end{aligned}$$

Same	Some
Positive	People
Different	Don't
Negative	No!