

# MULTIPLYING INTEGERS

MULTIPLYING  $\rightarrow$  REPEATED ADDITION

$\hookrightarrow$  is COMMUTATIVE  $\rightarrow 2 \times 4 = 4 \times 2$

$+$ $\times$ $-$ = $-$ $(3) \times (-2) = -6$	$-$ $\times$ $+$ = $-$ $(-4) \times 3 = -12$
$+$ $\times$ $+$ = $+$ $3 \times 3 = 9$	$-$ $\times$ $-$ = $+$ $(-4) \times (-4) = 16$

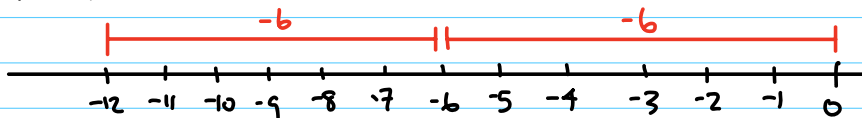
NEG  $\times$  POS = NEG  
POS  $\times$  NEG = NEG

CA RULES

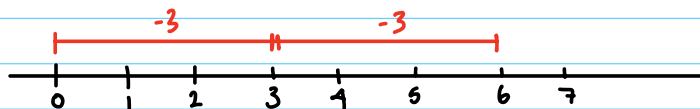
NEG  $\times$  NEG = POS  
POS  $\times$  POS = POS

\* WHEN MULTIPLYING +/- INTEGERS... LOOK AT \*  
① MAGNITUDE THEN ② POLARITY

$(+6)(-2) \rightarrow 6 \times 2 = 12$  -THINK POLARITY  $\rightarrow = \boxed{-12}$



$(-3)(-2) \rightarrow 3 \times 2 = 6$  -THINK POLARITY  $\rightarrow = \boxed{+6}$





ALSO TRUE WHEN TALKING:

"<sup>+</sup>JUST <sup>+</sup>DO IT" → POSITIVE    "<sup>-</sup>DON'T <sup>+</sup>DO THAT" → NEGATIVE

"<sup>-</sup>DON'T <sup>-</sup>NOT DO IT" = "DO IT" → POSITIVE



THE SIGNS ADD TOGETHER PHYSICALLY

$$- \times - = +$$

$$+ \times - = \cancel{+} - = -$$

EXTRA SIGN