

# WARM UP:

$$\textcircled{1} -17 + (-12) = \boxed{-29}$$

$$\textcircled{2} -25 - (-11) = -25 + 11 = \boxed{-14}$$

$$\textcircled{3} -40 + 12 = \boxed{-28}$$

$$\textcircled{4} -31 - 15 = -31 + (-15) = \boxed{-46}$$

$$\textcircled{5} -4 + (-3) - (-5) =$$
$$-7 + 5 = \boxed{-2}$$

# LESSON:

WHAT DO I NOTICE???

## Notes 1-6

Int 1

Multiply and Divide Integers

Unit 1

**RULES:**

When multiplying or dividing, if **BOTH** numbers are **POSITIVE**, the product or quotient (ANSWER) will be Positive.

$$2 \cdot 4 = 8$$

$$\frac{25}{5} = 5$$

$$3(6) = 18$$

\*we knew this from elementary school! 😊

When multiplying or dividing, if **BOTH** numbers are **NEGATIVE**, the product or quotient (ANSWER) will be POSITIVE.

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

$$-32 \div -16 = 2$$

$$-4 \cdot -5 = 20$$

$$-18 \div -6 = 3$$

## Notes 1-6

## Int 1

## Multiply and Divide Integers

## Unit 1

When **multiplying or dividing**, if one number is **NEGATIVE** and the other is **POSITIVE**, the **product or quotient (ANSWER)** will be

NEGATIVE.

$$-2 \cdot 2 = \boxed{-4}$$

$$-7 \cdot 4 = \boxed{-28}$$

$$2 \cdot -12 = \boxed{-24}$$

$$\frac{27}{-3} = \boxed{-9}$$

$$-24 \div 12 = \boxed{-2}$$

What happens with  $\underbrace{(-2) \cdot (-2)}_{4} \cdot -2 = (-2)^3 = \boxed{-8}$

$4 \cdot -2 =$

What happens with  $\underbrace{(-2)(-2)}_{4} \cdot \underbrace{(-2)(-2)}_{4} = (-2)^4 = \boxed{16}$

$4 \cdot 4 =$

What happens with  $\underbrace{(-2)(-2)}_{4} \cdot \underbrace{(-2)(-2)}_{4} \cdot (-2) = (-2)^5 = \boxed{-32}$

$4 \cdot 4 \cdot -2 =$

\*When there are an ODD amount of  $-$ # multiplied together ANSWER will be NEGATIVE.

EVEN amount of  $-$ #  $\rightarrow$  Positive answer!

## Notes 1-6

## Int 1

## Multiply and Divide Integers

## Unit 1

## PRACTICE:

$$1. \quad 2(-3)(-4) = 24$$

$\checkmark$   
 $-6(-4)$

$$5. \quad 8 + (-4) = -2$$

$$2. \quad (-1)(-1)(-5) = -5$$

$1 \cdot (-5)$

$$6. \quad -9 + -3 = 3$$

$$3. \quad 7(5)(-2) = -70$$

$\checkmark$   
 $35(-2)$

$$7. \quad 9 + (-3) = -3$$

$$4. \quad -8 + 4 = -2$$

Divide sign

What about with fractions? What happens?

$$\frac{-80}{10} = -8$$

$$\frac{-80}{-10} = 8$$

$$\frac{80}{-10} = -8$$

$$-\frac{80}{10} = -8$$

$$\frac{0}{-10} = 0$$