

Unit 4: Integers

A: Exploring Integer Multiplication

Integer Chips

Red - positive
Blue - negative

* Zero pair same # of red and blue chips.

Red (+) Blue (-)

$$(+1) + (-1) = 0$$

Examples:

1. Write the repeated addition as multiplication:

$$\begin{aligned} \text{a) } & (+2) + (+2) + (+2) \\ & = (+2) \times (+3) \\ & = +6 \end{aligned}$$

$$\begin{aligned} \text{b) } & (-5) + (-5) + (-5) + (-5) \\ & = (-5) \times (+4) \\ & = -20 \end{aligned}$$

2. Write the expression as repeated addition:

$$\begin{aligned} \text{a) } & (+2) \times (+7) \\ & = (+7) + (+7) \end{aligned} \quad \text{-or-} \quad = (+2) + (+2) + (+2) + (+2) + (+2) + (+2)$$

$$\begin{aligned} \text{b) } & (+5) \times (-2) \\ & = (-2) + (-2) + (-2) + (-2) + (-2) \end{aligned}$$

* only one method b/c negative.

$$-2 = (-2) \times (+1)$$

positive groups
 positive

negative groups
 negative

3. What multiplication statement is represented?

a) $(+2) \times (+3)$
 groups chips
 = +6 in a group

 $(+2) \times (+3) = +6$

b) $(+3) \times (-3)$
 groups chips
 = -9

 $(+3) \times (-3) = -9$

c) zero group shows you will be removing tiles/making negative groups.
 groups chips in groups
 $(-2) \times (-2)$
 = +4

 $(-2) \times (-2) = +4$

d) zero group
 groups chips
 $(-1) \times (+5)$
 = -5

 $(-1) \times (+5) = -5$

Assignment:
 Pg. 291 # 5-13