Multiplying + Dividing Integers

EQ: What are similarities and differences between x ÷ Integers

What are some different ways to write x and ÷ problems?

Multiplying:

3(2) (3)(3) 3·2 3×2

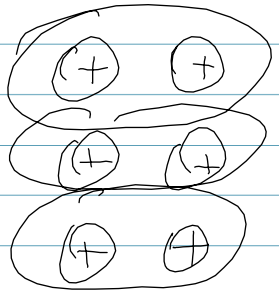
Division:

$\frac{1}{2}$ 1|2 2⟌ 1÷2

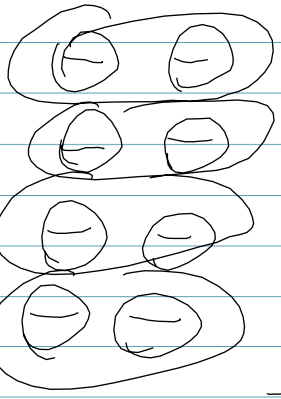
Modeling Multiplication

Chips:

3(2)



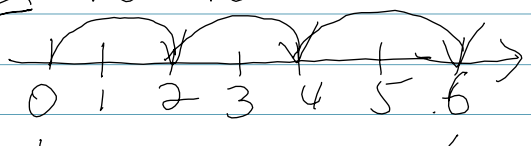
4(-2)



Explain modeling x with chips + number line

Number line:

3·2 +2 +2 +2



What are the rules for x and ÷ Integers?

Rules x ÷

Same sign + + or − − → product quotient +

different signs + − or − + → −

Examples:

$-8 \cdot 4 = -32$

$-3(-5) = 15$

$35 \div 5 = 7$

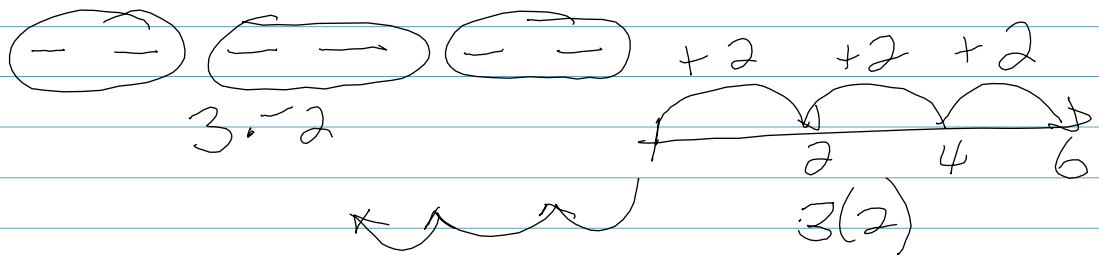
$20 \div -2 = -10$

Summary:

1) several diff. ways to write x and ÷ problems

$3(2)$ $(3)(2)$ $3 \cdot 2$ 3×2

$\frac{1}{2}$ $1|2$ $2\overline{|}1$ $1 \div 2$

2) 

3) $\begin{matrix} + & + \\ - & - \end{matrix}$ → + + − → −