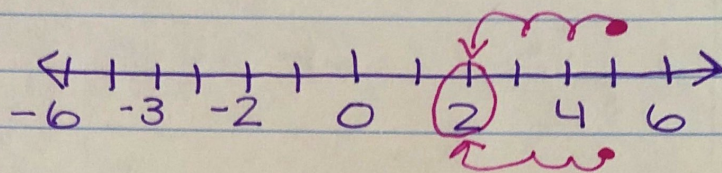


Integer Subtraction

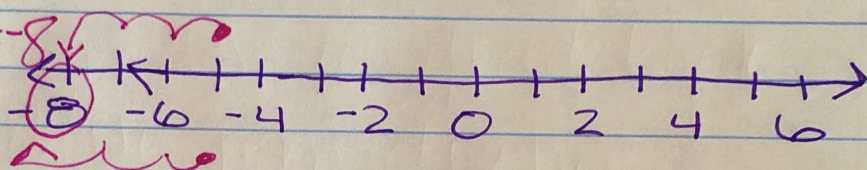
Number Line Examples

$$\boxed{5} - \boxed{3} = 2$$



$$\boxed{5} + \boxed{-3} = 2$$

$$\boxed{-5} - \boxed{3} = -8$$



$$\boxed{-5} + \boxed{-3} = -8$$

⊕ and ⊖ Counters Examples

$$\boxed{4} - \boxed{5} = 1$$

~~⊕~~
~~⊕~~
~~⊕~~
~~⊕~~
~~⊕~~

⊖

- add a zero pair b/c I didn't have 5 positives to give away.

$$\boxed{4} + \boxed{-5} = -1$$

~~⊕~~
~~⊕~~
~~⊕~~
~~⊕~~

~~⊖~~
~~⊖~~
~~⊖~~
~~⊖~~

⊖

$$\boxed{-2} - \boxed{(-4)} = 2$$

~~⊕~~
~~⊕~~

~~⊖~~
~~⊖~~

⊕

⊕

- add 2 zero pairs b/c I didn't have 4 negatives to give away

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

~~⊕~~
~~⊕~~

~~⊖~~
~~⊖~~

⊕

⊕

Every subtraction problem can be written as an equivalent addition problem.

Subtraction Practice

* From PPT

①

$$\begin{array}{r} \boxed{-7} - \boxed{15} \\ \downarrow \quad \downarrow \quad \downarrow \\ \boxed{-7} + \boxed{(-15)} = \begin{array}{r} 15 \\ + 7 \\ \hline 22 \end{array} = \boxed{-22} \end{array}$$

②

$$\begin{array}{r} \boxed{23} - \boxed{98} \\ \downarrow \quad \downarrow \quad \downarrow \\ \boxed{23} + \boxed{(-98)} = \begin{array}{r} 98 \\ - 23 \\ \hline 75 \end{array} = \boxed{-75} \end{array}$$

③

$$\begin{array}{r} \boxed{-48} - \boxed{(-13)} \\ \downarrow \quad \downarrow \quad \downarrow \\ \boxed{-48} + \boxed{13} = \begin{array}{r} 48 \\ - 13 \\ \hline 35 \end{array} = \boxed{-35} \end{array}$$

④

$$\begin{array}{r} \boxed{5} - \boxed{(-6)} \\ \downarrow \quad \downarrow \quad \downarrow \\ \boxed{5} + \boxed{6} = 11 \end{array}$$

⑤

$$\begin{array}{r} \boxed{17} - \boxed{8} \\ \downarrow \quad \downarrow \quad \downarrow \\ \boxed{17} + \boxed{(-8)} = \begin{array}{r} 17 \\ - 8 \\ \hline 9 \end{array} = \boxed{9} \end{array}$$