

**Be Kind to a person in one
of
your classes today!**



Today you will need:

- **Pencil**
- **Lab Sheet** (I will pass out)
- **Vocabulary Sheet**
- **Red/White Chips** (When Instructed)

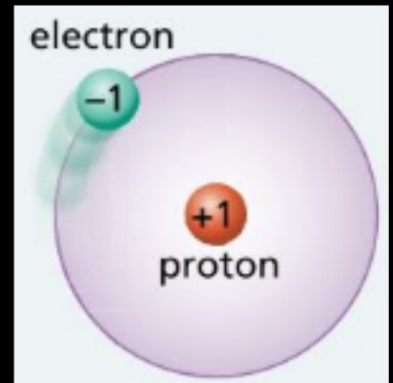




7.NS.1: I can model addition and subtraction using a chip board.

As a team, answer the question.
Record the answers in your graph paper.

D Integers are also used in chemistry. For example, a hydrogen atom has one proton, which has a charge of $+1$, and one electron, which has a charge of -1 . The total charge of a hydrogen atom is $+1 + -1$, or 0 . Describe three more real-life situations in which opposite quantities combine to make 0 .



Class Work Answers:

D. ****some examples****

Climbing three flights of stairs to get your backpack, and then going back down three flights stairs.

Owing someone \$8, and then paying them back \$8.

1.4 In the Chips

Using a Chip Model

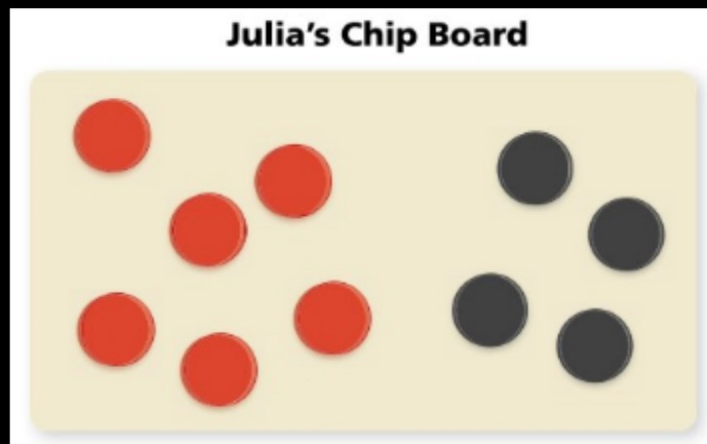
When business records were kept by hand, accountants used red ink for expenses and black ink for income. If your income was greater than your expenses, you were “in the black.” If your expenses were greater than your income, you were “in the red.” You wanted to be “in the black.”

Julia has this problem to solve:

Tate owes his sister \$6 for helping him cut the lawn. He earns \$4 delivering papers. Is Tate “in the red” or “in the black”?

To solve this problem, Julia uses red and black chips to model income and expenses. Each black chip represents $+1$ dollar of income. Each red chip represents -1 dollar of income (expenses).


Julia puts chips on the board to represent the situation.




She decides that Tate is "in the red" 2 dollars, or has -2 dollars. She writes

$$-6 + +4 = -2$$

Modeling with Positive and Negative Chips

 = positive 1

 = negative 1

What's the Total?

$$\bigcirc + \bigcirc + \bigcirc =$$

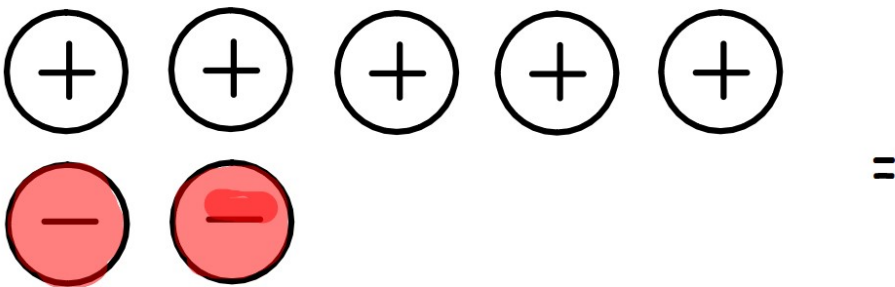
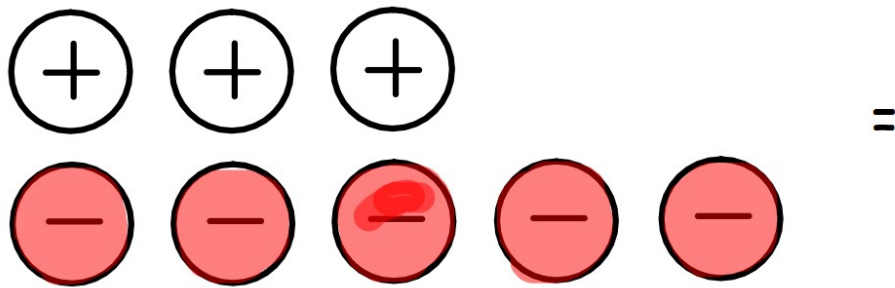
$$\ominus \ominus \ominus \ominus \ominus =$$

What's the Total?

$$\begin{array}{c} \textcircled{+} \\ = \\ \textcircled{-} \end{array}$$

$$\begin{array}{ccc} \textcircled{+} & \textcircled{+} & \textcircled{+} \\ \textcircled{-} & \textcircled{-} & \textcircled{-} \end{array} =$$

What's the Total?



A) $-2 + -5 =$

Chip Board

B) $3 - 2 =$

Chip Board

C) $-4 - (-2) =$

Chip Board

D) $-3 + 5 =$

Chip Board

E) $4 - 6 =$

Chip Board

F) $-4 - 2 =$

Chip Board

Homework:

finish 1.4 labsheet

G) $-5 - 3 =$

Chip Board