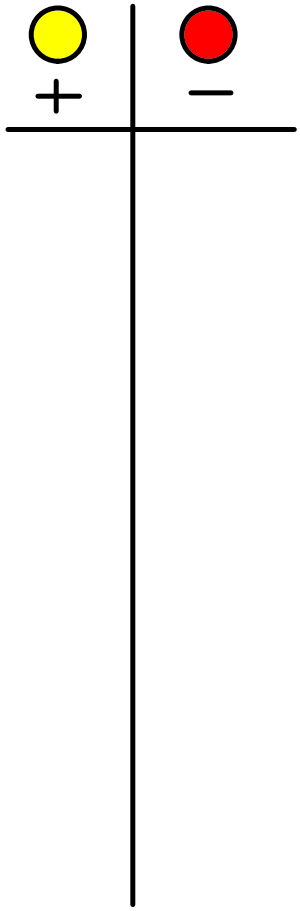
Welcome to Math with Mr. Childs

Learning Goal:

By the end of today, I should be able to **add** and **subtract** combinations of positive and negative integers (via the Zero Principle).

The ZERO Principle states that a positive and negative cancel each other out.

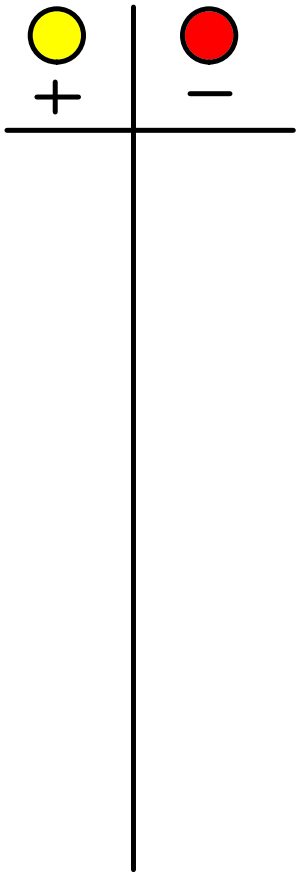


Using Integer Chips (two coloured counters) show the value of:

(a) Zero

(b) positive three

(c) negative two



Using Integer Chips (two coloured counters) show the value of:

(a) 3 + 4 =

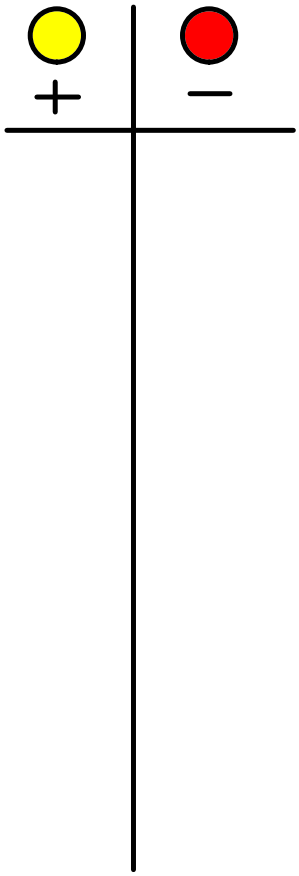
"three positive chips, plus four more positive chips"

(b) -5 + 3 =

"five negative chips, plus three more positive chips"

(c) 6 + (-2) =

"six positive chips, plus two negative chips"

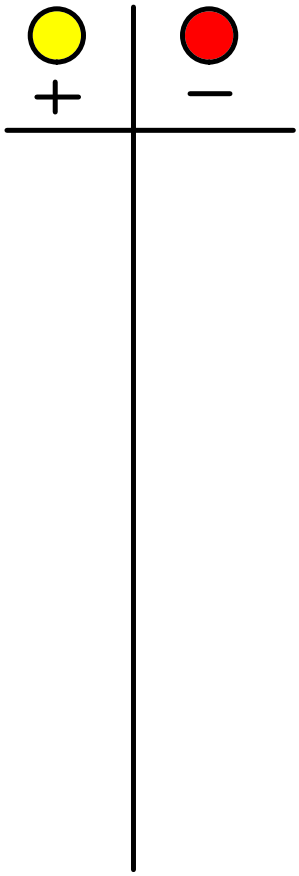


Using Integer Chips (two coloured counters) show the value of:

(a) -1 + 4 + 2 =

(b) -3 + (-3) + 6 =

(c) 7 + (-2) + (-6) =



Using Integer Chips (two coloured counters) show the value of:

(a) 5 - 3 =

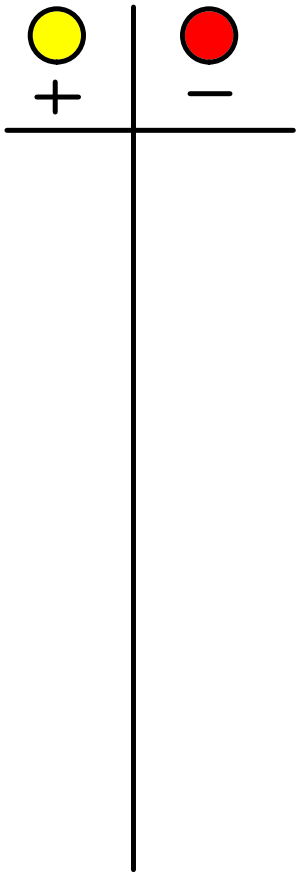
"five positive chips, take away (subtract) three positive chips"

(b) 3 - 3 =

"three positive chips, take away (subtract) three positive chips"

(c) 4 - 6 =

"four positive chips, take away (subtract) six positive chips"



Compare the following:

5 + (-2) =

and

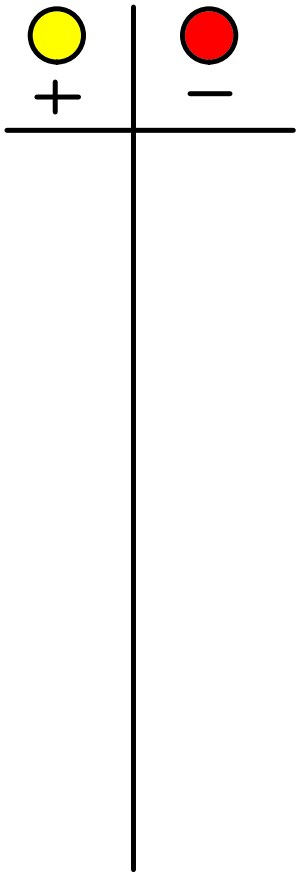
5 - 2 =

Observations...

Adding a negative value gives the same result as subtracting a positive value.

5 + (-3) is the same as 5 - 3

Now on to the tricky ones...



Using Integer Chips (two coloured counters) show the value of:

(a) 0 + 4 =

"zero chips, plus four positive chips"

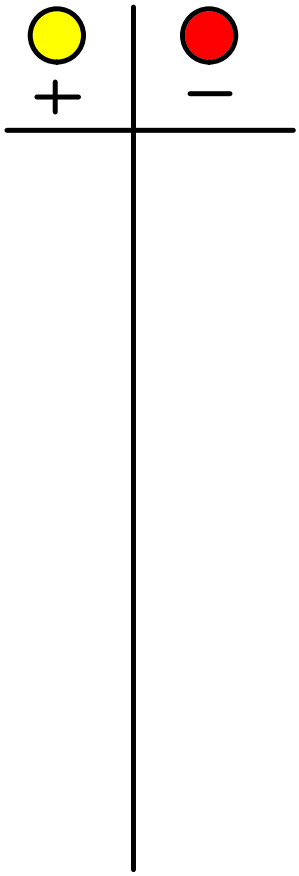
(b) 0 - 3 =

"zero chips, take away three positive chips"

(c) 0 - (-1) =

"zero chips, take away one negative chip"

Read from left to right, the direction matters with subtraction.



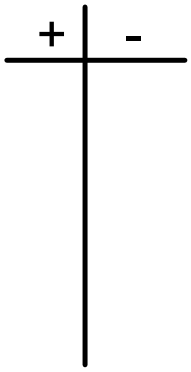
Using Integer Chips (two coloured counters) show the value of:

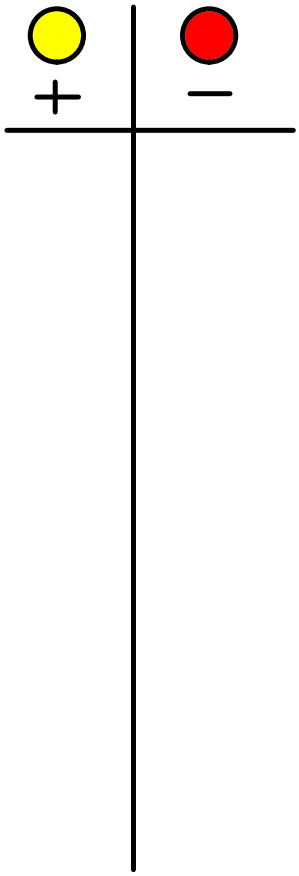
(a) -2 + 4 =

(b) -3 - 2 =

(c) -1 - 6 =

Alternate drawing





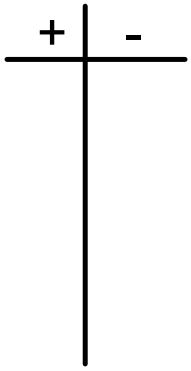
Using Integer Chips (two coloured counters) show the value of:

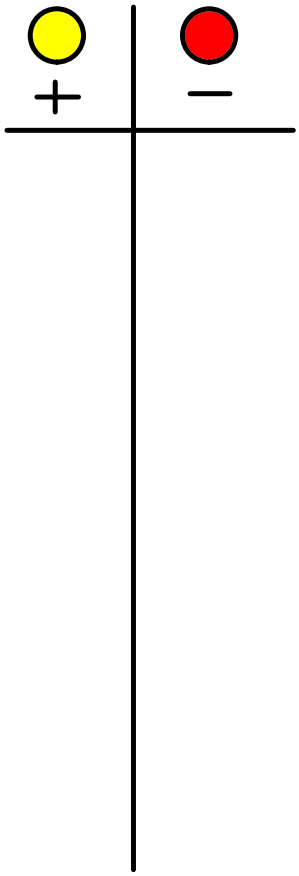
(a) 4 - (-4) =

(b) 2 - (-3) =

(c) -4 - (-1) =

Alternate drawing





Compare the following:

5 - (-2) =

and

5 + 2 =

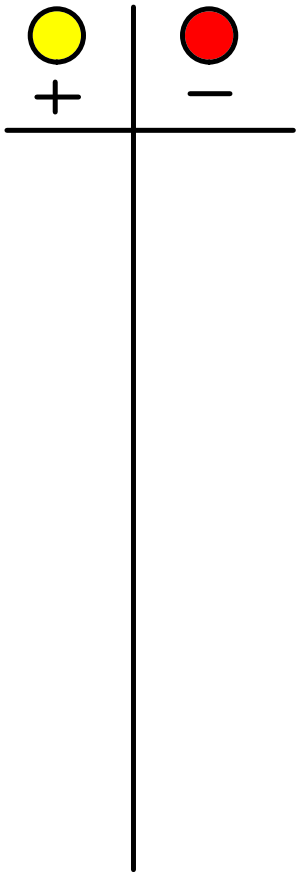
Observations...

Subtracting a positive number gives the same result as adding a negative number.

9 - 5 is the same as 9 + (-5)

Subtracting a negative number gives the same result as adding a positive number.

5 - (-3) is the same as 5 + 3



Using Integer Chips (two coloured counters) show the value of:

(a) 2 + 6 - (-4) =

(b) 8 - (-3) + 1 =

(c) -5 - (-1) - 3 =

Break the following down into ones, tens, hundreds.

(a) 125

(b) -24

(c) -88

Evaluate the following (break the larger numbers into their parts if it helps).

(a) 78 - 64

(b) 146 + 24 - 45

Traditional Methods (columns)

Adding

345 + 89

165 + 59 + 32

Traditional Methods (columns)

Subtracting

154 - 42

168 - 92

Consolidation Questions:

Homework: Integers Task.

Attachments

Math - task1 - add-sub integers.doc