

# 2-4 Study Guide and Intervention

## Adding Integers

For integers with the same sign:

- the sum of two positive integers is positive.
- the sum of two negative integers is negative.

For integers with different signs, subtract their absolute values. The sum is:

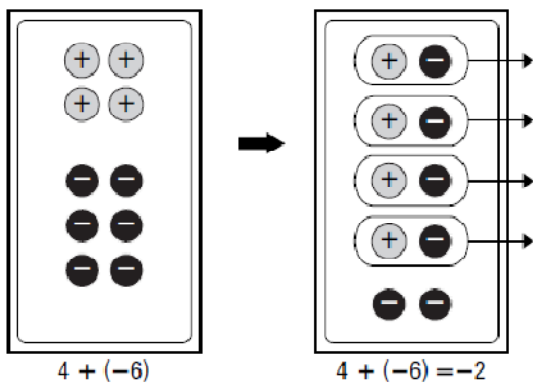
- positive if the positive integer has the greater absolute value.
- negative if the negative integer has the greater absolute value.

To add integers, it is helpful to use counters or a number line.

### Example Find $4 + (-6)$ .

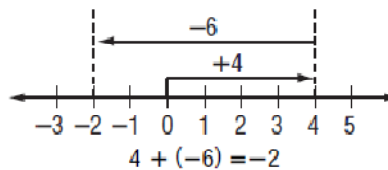
**Method 1** Use counters.

Combine a set of 4 positive counters and a set of 6 negative counters on a mat.



**Method 2** Use a number line.

- Start at 0.
- Move 4 units right.
- Then move 6 units left.



### Exercises

Add.

1.  $-5 + (-2)$  **-7**

2.  $8 + 1$  **9**

3.  $-7 + 10$  **3**

4.  $16 + (-11)$  **5**

5.  $-22 + (-7)$  **-29**

6.  $-50 + 50$  **0**

7.  $-10 + (-10)$  **-20**

8.  $100 + (-25)$  **75**

9.  $-35 + -20$  **-55**

Evaluate each expression if  $a = 8$ ,  $b = -8$ , and  $c = 4$ .

10.  $a + 15$  **23**

11.  $b + (-9)$  **-17**

12.  $a + b$  **0**

13.  $b + c$  **-4**

14.  $-10 + c$  **-6**

15.  $12 + b$  **4**