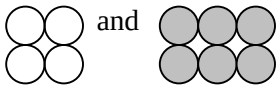
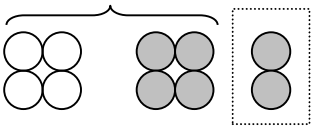
Adding Integers using Colored Chips – Part 2

Use the gray and white chips to represent the addition of positive and negative numbers.

Example:

 and

can be rearranged as $-4+6=?$



Notice that 4 of the white chips and the four gray chips (–4 + 4) make zero. This leaves two gray chips, so –4 + 6 equals 2.

Determine each of the following by drawing the chips:

1. $-6+8=2$

2. $-5+2=-3$

3. $2+(-7)=-5$

4. $-9+(-6)=-15$

5. Why are the parentheses used in problems 3 and 4? Are they necessary?

The parentheses are used to make the negative number more apparent.

The parentheses are not required.

6. How can you determine whether the result will be positive or negative before you perform the computations?

The result is negative when the negative number is larger, in absolute value, than the positive number. The result will be positive when the positive number is larger, in absolute value, than the negative number.