Addition and Subtraction of Integers

Key Ideas

You can use integer chips to represent integer addition.



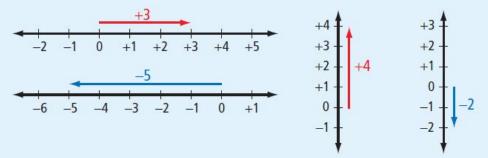
- A zero pair, which includes one +1 chip and one -1 chip, represents 0.
- The sum of any two opposite integers is zero.

$$(-7) + (+7) = 0$$

$$-7 \text{ and } +7 \text{ are opposite integers.}$$

Key Ideas

• You can use an arrow on a horizontal or vertical number line to represent an integer. The direction of the arrow shows the sign of the integer. The length of the arrow shows the value of the numeral in the integer.



Addition Rules-

Same signs (+ or -) add and keep sign

Different signs subtract and take sign of largest <u>absolute value</u> (<u>distance the</u> number is from 0)

Subtracting Integers

Key Ideas

- You can subtract an integer by adding the opposite.
- You can represent integer subtraction by adding the opposite on a vertical or horizontal number line.

Key Ideas

- You may need to decide when to add integers and when to subtract integers.
- · Some problems involve both the addition and subtraction of integers.