

Section 1.6
Subtracting Integers

Goal: to use subtracting with integers to simplify expressions

The Kick 'em Jenny volcano is an underwater volcano in the Caribbean Sea. The volcano grows with each eruption. In 1962, the summit elevation was -235 meters. In 2002, it was at -182 meters. What was the change in elevation?



Subtraction is the same thing as adding the opposite.

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

$$5 + (+2) = 7$$

$$3 - 7$$

$$3 + (-7) = -4$$

Find the difference:

$$6 - 13 = 6 + (-13) = -7$$

$$-12 - 4 = -12 + (-4) = -16$$

$$-5 - (-15) = -5 + 15 = 10$$

Evaluate when $x = -9$

$$x - (-14) = -9 - (-14) = -9 + 14 = 5$$

$$7 - x = 16$$

$$-9 - x = 0$$

You can use subtraction to find the change in a variable change such as temperature or elevation.

Find the change in elevation of a diver who descends to -52 feet from -37 feet.

$$-52 + (+37)$$

$$\begin{array}{r} -52 \\ +37 \\ \hline -15 \end{array}$$

-15 ft

After four years of eruptions, an underwater volcano off the coast of Iceland broke through the ocean's surface. The eruption began 130 meters below sea level. The volcano became the island of Surtsey, with an elevation of 174 meters. What was the change in elevation?

Find the change in temperature.

8 degrees C to -3 degrees C

$$-11^{\circ}$$

Hwk: pg. 36 - 38

#1, 12-32 (4th), 33,

36 - 46 evens, 50, 52, 55