

You Try It 7

Add. Use Example 5 as a guide.

a) $18 + (-45)$

b) $-38 + 52$

c) $-19 + 35$

d) $-86 + 42$

In general, before evaluating the sum of two numbers, it is helpful to first determine whether the sum will be positive or negative. By writing the sum with the larger-valued number first, we get an immediate clue as to whether the result will be positive or negative: the result will have the same sign as the larger-valued number.

Think About It 1

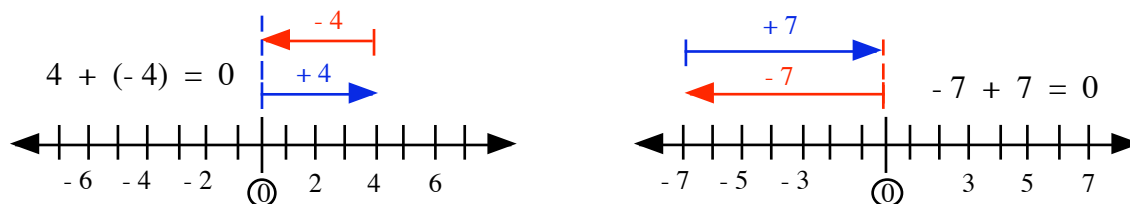
Can the sum of two negative numbers ever be positive? Explain your answer or show an example that supports your answer.

Think About It 2

If two numbers have different signs but have the same numerical value, such as -3 and 3 , then which sign should be given to their sum? Explain your answer.

THE ADDITIVE INVERSE

A number and its opposite have vectors that are the same length but in opposite directions, so when they are added together, the sum is 0.



The sum of a number and its opposite is 0:

$$a + (-a) = 0 \quad \text{and} \quad -a + a = 0.$$