

# Understanding Integer Subtraction

Materials: Each group of students will need:  
10 green squares, each labelled +1  
10 red squares, each labelled -1

1. Students should form into groups of two or three.
2. Place 3 green squares on the desk. Place another 2 green squares on the desk. There are now 5 green squares on the desk. This shows that
$$+3 + +2 = +5$$
3. Place 3 red squares on the desk. Place another 4 red squares on the desk. There are now 7 red squares on the desk. This shows that
$$-3 + -4 = -7$$
4. Use your number tiles to show that:  $-1 + -5 = -6$
5. Place 1 green square and 1 red square on the desk. Explain why a red square and a green square “cancel out”, leaving no squares. Write the number sentence for this.
6. Place 4 green squares and 3 red squares on the desk. Explain why after “cancelling”, there is one green square left. Write the number sentence for this.
7. Use your number squares to show that:  $-5 + +3 = -2$
8. Place 6 green squares on the desk. Now remove 4 green squares. There are 2 green squares left. This shows that:
$$+6 - +4 = +2$$
8. Place 7 red squares on the desk. Now remove 3 red squares. There are 4 red squares left. This shows that:
$$-7 - -3 = -4$$