

## Lesson 1-1: Relate Integers and Their Opposites

1. Sample answer: An integer and its opposite are the same distance from 0, but on opposite sides of 0. They combine to make 0.
2. Sample answer: The charge is zero because the two +1 charges, represented by 2, and the two -1 charges, represented by -2, combine to make zero.
3. Sample answer: Start at 0 and move to one quantity on the number line. From that point, plot the opposite quantity by moving the same number of units in the opposite direction. The final location on the number line is 0.
4. -18; 18 meters
5.  $0^{\circ}$ ;  $78^{\circ}\text{F}$
6. -5
7. 53
8. -8
9. 4,000
10. a. 7; -8  
b. No; Sample answer: A and B are not exactly opposite from each other on the number line, so they are not opposite integers.
11. 9
12. 4 meters
13. -400
14. Sample answer:  $x$  can be 16 and  $y$  can be -16, or  $x$  can be -16 and  $y$  can be 16. They must be opposites because when they are combined they equal 0.
15. Sample answer: Julia drove for 42 minutes.
16. -7, -3, 3, 7
17. X You climb up 9 flights of stairs.  
X You earn \$9 from your job.
18. X An airplane descends 80 meters.  
X The cost of a train ticket drops by \$80.  
X You remove 80 songs from an MP3 player.