



- |                    |       |                        |       |
|--------------------|-------|------------------------|-------|
| 1. $-(-6) =$       | _____ | 9. $-(-(-7)) =$        | _____ |
| 2. $-(-14) =$      | _____ | 10. $-(-(-(-20))) =$   | _____ |
| 3. $-(-(-3)) =$    | _____ | 11. $-(-33) =$         | _____ |
| 4. $-(-(-(-8))) =$ | _____ | 12. $-(-(-(-(-4)))) =$ | _____ |
| 5. $-(-25) =$      | _____ | 13. $-(-(-16)) =$      | _____ |
| 6. $-(-(-11)) =$   | _____ | 14. $-(-(-(-9))) =$    | _____ |
| 7. $-(-(-(-5))) =$ | _____ | 15. $-(-42) =$         | _____ |
| 8. $-(-19) =$      | _____ |                        |       |

**Study Tips**

- 👉 Two negatives always cancel:  $-(-n) = n$ . Count the minus signs — even count gives positive, odd count gives negative.
- 👉 The opposite of zero is zero:  $-(0) = 0$ .
- 👉 On any number line, moving **left** decreases the value; moving **right** increases it.

**Word Problems**

16. Marcus and his sister are playing a golf-themed board game where each player's score is tracked relative to par. Marcus's score is 5 strokes *under* par and his sister's score is 3 strokes *over* par. Write an integer for each score. In golf, the player with the *lower* score wins — who is winning, and by how many strokes?  
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17. A weather station records a high temperature of  $12^{\circ}\text{F}$  for one afternoon. That same night, the low temperature is the exact opposite of the afternoon high. During the early morning, the temperature drops an additional 7 degrees below the overnight low. Write an integer for the overnight low and for the early-morning temperature. By how many degrees did the temperature change from the afternoon high to the early-morning reading? \_\_\_\_\_
18. Three points are plotted on the number line shown here. Identify the integer for each point, find the opposite of point *B*, and find the distance from point *A* to point *C*.  
\_\_\_\_\_



## Answer Keys

- |  |   |
|--|---|
| <p>1) 6</p> <p>2) 14</p> <p>3) -3</p> <p>4) 8</p> <p>5) 25</p> <p>6) -11</p> <p>7) 5</p> <p>8) 19</p> <p>9) -7</p> <p>10) 20</p> <p>11) 33</p> | <p>12) -4</p> <p>13) -16</p> <p>14) 9</p> <p>15) 42</p> <p>16) Marcus <math>-5</math>, Sister <math>+3</math>; Marcus wins by 8 strokes.</p> <p>17) Low <math>-12^{\circ}\text{F}</math>; early morning <math>-19^{\circ}\text{F}</math>; change <math>31^{\circ}\text{F}</math></p> <p>18) <math>A = -5</math>; <math>B = 2</math>; <math>C = 6</math>; opposite of <math>B</math>: <math>-2</math>; distance <math>A</math> to <math>C</math>: 11</p> |
|--|---|

### Step-by-Step Explanations

**Strategy:** For Understanding Integers and the Number Line, use the number line as the home base: locate the value, decide whether the problem asks for an opposite or a distance, and only then simplify. The strongest work shows the direction of the move before giving the number.

**Practice 1:**  $-(-6) =$  **Answer:** 6

Read the outside negative as “take the opposite”; the opposite of  $-6$  is 6.

**Practice 15:**  $-(-42) =$  **Answer:** 42

Read the outside negative the same way; the opposite of  $-42$  is 42.

**Word-problem notes:**

**16. Answer:** Marcus  $-5$ , Sister  $+3$ ; Marcus wins by 8 strokes.

“Under par” means negative, so Marcus’s score is  $-5$ . “Over par” means positive, so his sister’s score is  $+3$ . In golf, the lower score wins, and  $-5$  is less than  $+3$  because it is farther left on the number line. To find how far apart the scores are, compute  $3 - (-5) = 3 + 5 = 8$ .

**17. Answer:** Low  $= -12^{\circ}\text{F}$ ; early morning  $= -19^{\circ}\text{F}$ ; change  $= 31^{\circ}\text{F}$

The opposite of 12 is  $-12$ , so the overnight low is  $-12^{\circ}\text{F}$ . Then the temperature drops 7 more degrees, so  $-12 - 7 = -19^{\circ}\text{F}$ . To find the total change from  $12^{\circ}\text{F}$  to  $-19^{\circ}\text{F}$ , count the drop to zero and then below zero:  $12 + 19 = 31$  degrees. So the temperature dropped  $31^{\circ}\text{F}$  altogether.

**18. Answer:**  $A = -5$ ;  $B = 2$ ;  $C = 6$ ; opposite of  $B$  is  $-2$ ; distance  $A$  to  $C = 11$ .

Read each integer directly from the number line:  $A$  is at  $-5$ ,  $B$  is at 2, and  $C$  is at 6. The opposite of 2 is  $-2$ . To find the distance between  $A$  and  $C$ , count the units from  $-5$  to 6: that is 5 units to reach 0, then 6 more units to reach 6, for a total of 11 units.



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