

Practice & Problem Solving

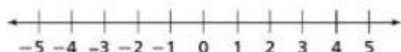


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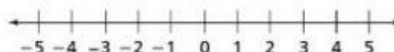
Leveled Practice For 7–9, use a number line to help find the sum.

7. $5 + (-3)$ is units from 5, in the direction.

Use the number line to find $5 + (-3)$



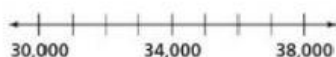
8. $-1 + (-3)$ is units from -1, in the direction.



9. In City A, the temperature rises 9° from 8 A.M. to 9 A.M. Then the temperature drops 8° from 9 A.M. to 10 A.M. In City B, the temperature drops 5° from 8 A.M. to 9 A.M. Then the temperature drops 4° from 9 A.M. to 10 A.M.



- What expression represents the change in temperature for City A?
 - What integer represents the change in temperature for City A?
 - What expression represents the change in temperature for City B?
 - What integer represents the change in temperature for City B?
 - Which city has the greater change in temperature from 8 A.M. to 10 A.M.?
10. An airplane flying at an altitude of 30,000 feet flies up to avoid a storm. Immediately after passing the storm, the airplane returns to its original altitude.
- What integer represents the airplane's change in altitude to avoid the storm?
 - What integer represents the airplane's change in altitude immediately after passing the storm?
 - Use Appropriate Tools** Draw a number line to represent the airplane's change in altitude.



The airplane flies up to 38,000 feet to avoid a storm.

11. A deep-sea diver dives 81 feet from the surface. He then dives 14 more feet. The diver's depth can be represented by $-81 + (-14)$. What is the diver's present location?

12. Rena's rowboat drifts 23 feet from shore, followed by 9 more feet. The rowboat's current position can be represented by $-23 + (-9)$. What integer represents the rowboat's position?

13. **Critique Reasoning** A submarine traveling 200 meters below the surface of the ocean increases its depth by 45 meters. Adam says that the new location of the submarine is -155 meters. Describe an error Adam could have made that would result in the answer he gave.

14. Kim has \$45 to spend for a day at the zoo. She pays \$17 for admission, \$8 for lunch, and \$4 for a snack.

a. **Model with Math** Use integers to write an addition expression that represents the amount of money Kim has left.

- b. Kim goes to the gift shop and finds a T-shirt she likes for \$19. Does she have enough money to buy the T-shirt? Explain.



15. **Higher Order Thinking** Samantha has \$300 for guitar lessons to learn her favorite song. Mrs. Jones charges \$80 per lesson and requires three lessons to teach Samantha the song. Mr. Beliz charges \$62 per lesson and will require four lessons to teach Samantha the song. Use integers to represent what each teacher charges. Which is the better deal for Samantha?

Assessment Practice

16. A fish swims at 10 ft below sea level, and then swims another 10 ft deeper to avoid a shark. Write an addition expression that represents this situation.

17. The temperature drops 10 degrees and then rises 10 degrees. Write an addition expression that represents this situation.

