

1.2 Exercises



Vocabulary and Concept Check

- WRITING** How do you find the additive inverse of an integer?
- NUMBER SENSE** Is $3 + (-4)$ the same as $-4 + 3$? Explain.

Tell whether the sum is *positive*, *negative*, or *zero* without adding. Explain your reasoning.

- $-8 + 20$
- $50 + (-50)$
- $-10 + (-18)$

Tell whether the statement is *true* or *false*. Explain your reasoning.

- The sum of two negative integers is always negative.
- An integer and its absolute value are always opposites.

Practice and Problem Solving

Add.

- | | | | | | |
|---|---|-------------------|-----------------|------------------|------------------|
| 1 | 2 | 8. $6 + 4$ | 9. $-4 + (-6)$ | 10. $-2 + (-3)$ | 11. $-5 + 12$ |
| | | 12. $5 + (-7)$ | 13. $8 + (-8)$ | 14. $9 + (-11)$ | 15. $-3 + 13$ |
| | | 16. $-4 + (-16)$ | 17. $-3 + (-4)$ | 18. $14 + (-5)$ | 19. $0 + (-11)$ |
| | | 20. $-10 + (-15)$ | 21. $-13 + 9$ | 22. $18 + (-18)$ | 23. $-25 + (-9)$ |

ERROR ANALYSIS Describe and correct the error in finding the sum.

24. ~~$9 + (-6) = -3$~~

25. ~~$-10 + (-10) = 0$~~

- TEMPERATURE** The temperature is -3°F at 7 A.M. During the next four hours, the temperature increases 21°F . What is the temperature at 11 A.M.?
- BANKING** Your bank account has a balance of $-\$12$. You deposit $\$60$. What is your new balance?

Add.

- | | | | |
|---|-----------------------|--------------------------|---------------------------|
| 3 | 28. $13 + (-21) + 16$ | 29. $22 + (-14) + (-35)$ | 30. $-13 + 27 + (-18)$ |
| | 31. $-19 + 26 + 14$ | 32. $-32 + (-17) + 42$ | 33. $-41 + (-15) + (-29)$ |

Tell how the Commutative and Associative Properties of Addition can help you find the sum mentally. Then find the sum.

- | | | |
|------------------------|------------------------|------------------------|
| 34. $9 + 6 + (-6)$ | 35. $-8 + 13 + (-13)$ | 36. $9 + (-17) + (-9)$ |
| 37. $7 + (-12) + (-7)$ | 38. $-12 + 25 + (-15)$ | 39. $6 + (-9) + 14$ |