

3-11, 13-15 odd - ^{all} rewrite with numbers on 8-10 & 33-43

Skill and Concept Check

- Writing Math** Explain how additive inverses are used in subtraction.
- OPEN ENDED** Write a subtraction sentence using integers. Then, write the equivalent addition sentence and find the sum.
- FIND THE ERROR** Bradley and Mitsu are finding $-16 - (-19)$. Who is correct? Explain.

Bradley $-16 - (-19) = -16 + (-19)$ $= -35$	Mitsu $-16 - (-19) = -16 + (19)$ $= 3$
--	---

GUIDED PRACTICE

Subtract.

4. $-4 - 8$ 5. $14 - 17$ 6. $14 - (-10)$ 7. $-3 - (-1)$

ALGEBRA Evaluate each expression if $p = 8$, $q = -14$, and $r = -6$.

8. $p - q$ $8 - (-14) = 22$ 9. $q - r$ 10. $r - p$

11. **METEOROLOGY** The highest temperature ever recorded on Earth was 136°F in Libya. The lowest temperature was -129°F in Antarctica. What is the range of the highest and lowest temperatures on Earth?

Practice and Applications

Subtract.

- | | | |
|------------------------------|--------------------------|--------------------|
| 12. $-9 - 5$ | 13. $0 - 10$ | 14. $-8 - 9$ |
| 15. $17 - 13$ | 16. $27 - (-8)$ | 17. $-25 - (-5)$ |
| 18. $12 - 26$ | 19. $4 - (-19)$ | 20. $-11 - 42$ |
| 21. $15 - (-14)$ | 22. $-27 - (-19)$ | 23. $-18 - (-20)$ |
| 24. $31 - 48$ | 25. $-33 - (-27)$ | 26. $52 - (-52)$ |
| 27. $-44 - (-41)$ | 28. $-2 - 9 + 7$ | 29. $6 + (-1) - 4$ |
| 30. What is -3 minus 4 ? | 31. Find $-23 - (-19)$. | |

ALGEBRA Evaluate each expression if $f = -6$, $g = 7$, and $h = 9$.

- | | | | |
|---------------|---------------------------|-----------------|---------------------|
| 32. $5 - f$ | 33. $h - (-9)$ $9 - (-9)$ | 34. $f - g$ | 35. $g - 7$ $7 - 7$ |
| 36. $h - f$ | 37. $f - 6$ | 38. $g - h$ | 39. $4 - (-g)$ |
| 40. $-h - 10$ | 41. $-f - h$ | 42. $f - g - h$ | 43. $h - g - f$ |

44. **ALGEBRA** Find $|a - b|$ when $a = -7$ and $b = 11$.

45. **GEOGRAPHY** The Dead Sea's deepest part is 799 meters below sea level. A plateau to the east of the Dead Sea rises to about 1,340 meters above sea level. What is the difference between the deepest part of the Dead Sea and the top of the plateau?

File Exercises	See Examples
12-31	1-4
32-44	5
45-48	6

Practice: Word Problems***Subtracting Integers*****Subtract.**

<p>1. FOOTBALL A team gained 5 yards on their first play of the game. Then they lost 6 yards. Find the total change in yardage.</p>	<p>2. CHECKING Your checking account is overdrawn by \$50. You write a check for \$20. What is the balance in your account?</p>
<p>3. TEMPERATURE The average temperature in Calgary, Canada, is 22°C in July and -11°C in January. Find the range of the highest and lowest temperatures in Calgary.</p>	<p>4. ROLLER COASTER A roller coaster begins at 90 feet above ground level. Then it descends 105 feet. Find the height of the coaster after the first descent.</p>
<p>5. SAVINGS Sonia has \$235 in her savings account. She withdraws \$45. What is left in her savings account?</p>	<p>6. BEACH Wai and Kuri were digging in the sand at the beach. Wai dug a hole that was 15 inches below the surface, and Kuri dug a hole that was 9 inches below the surface. Find the difference in the depths of their holes.</p>