



GUIDED PRACTICE

1. **Vocabulary** Will the *solution of an equation* such as $x - 3 = 9$ be a variable or a number? Explain.

Solve each equation. Check your answer.

SEE EXAMPLE 1

2. $s - 5 = 3$

3. $17 = w - 4$

4. $k - 8 = -7$

5. $x - 3.9 = 12.4$

6. $8.4 = y - 4.6$

7. $\frac{3}{8} = t - \frac{1}{8}$

SEE EXAMPLE 2

8. $t + 5 = -25$

9. $9 = s + 9$

10. $42 = m + 36$

11. $2.8 = z + 0.5$

12. $b + \frac{2}{3} = 2$

13. $n + 1.8 = 3$

SEE EXAMPLE 3

14. $-10 + d = 7$

15. $20 = -12 + v$

16. $-46 + q = 5$

17. $2.8 = -0.9 + y$

18. $-\frac{2}{3} + c = \frac{2}{3}$

19. $-\frac{5}{6} + p = 2$

SEE EXAMPLE 4

20. **Geology** In 1673, the Hope diamond was reduced from its original weight by about 45 carats, resulting in a diamond weighing about 67 carats. Write and solve an equation to find how many carats the original diamond weighed. Show that your answer is reasonable.

PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
21–30	1
31–40	2
41–48	3
49	4



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Online Extra Practice

Solve each equation. Check your answer.

21. $1 = k - 8$

22. $u - 15 = -8$

23. $x - 7 = 10$

24. $-9 = p - 2$

25. $\frac{3}{7} = p - \frac{1}{7}$

26. $q - 0.5 = 1.5$

27. $6 = t - 4.5$

28. $4\frac{2}{3} = r - \frac{1}{3}$

29. $6 = x - 3$

30. $1.75 = k - 0.75$

31. $19 + a = 19$

32. $4 = 3.1 + y$

33. $m + 20 = 3$

34. $-12 = c + 3$

35. $v + 2300 = -800$

36. $b + 42 = 300$

37. $3.5 = n + 4$

38. $b + \frac{1}{2} = \frac{1}{2}$

39. $x + 5.34 = 5.39$

40. $2 = d + \frac{1}{4}$

41. $-12 + f = 3$

42. $-9 = -4 + g$

43. $-1200 + j = 345$

44. $90 = -22 + a$

45. $26 = -4 + y$

46. $1\frac{3}{4} = -\frac{1}{4} + w$

47. $-\frac{1}{6} + h = \frac{1}{6}$

48. $-5.2 + a = -8$

49. **Finance** Luis deposited \$500 into his bank account. He now has \$4732. Write and solve an equation to find how much was in his account before the deposit. Show that your answer is reasonable.

50. **/// ERROR ANALYSIS ///** Below are two possible solutions to $x + 12.5 = 21.6$. Which is incorrect? Explain the error.

A

$x + 12.5 = 21.6$
$- 12.5 \quad - 12.5$
$x = 9.1$

B

$x + 12.5 = 21.6$
$+ 12.5 \quad + 12.5$
$x = 34.1$