

**GUIDED PRACTICE** for Examples 3, 4, and 5

Solve the equation. Check your solution.

5. $-2x + 9 = 2x - 7$

6. $10 - x = -6x + 15$

7. $3(x + 2) = 5(x + 4)$

8. $-4(2x + 5) = 2(-x - 9) - 4x$

9. $\frac{1}{4}x + \frac{2}{5}x = 39$

10. $\frac{2}{3}x + \frac{5}{6} = x - \frac{1}{2}$

11. **WHAT IF?** In Example 5, suppose it takes you 9 minutes to wash a car and it takes your friend 12 minutes to wash a car. How long does it take the two of you to wash 7 cars if you work together?

1.3 EXERCISES**HOMEWORK KEY**
 = **WORKED-OUT SOLUTIONS**
on p. WS1 for Exs. 23, 43, and 71

 = **TAKS PRACTICE AND REASONING**
Exs. 19, 32, 72, 77, 79, and 80

 = **MULTIPLE REPRESENTATIONS**
Ex. 74
SKILL PRACTICE

1. **VOCABULARY** Copy and complete: If a number is substituted for a variable in an equation and the resulting statement is true, the number is called a(n) ? of the equation.
2. **WRITING** Give an example of two equivalent equations. How do you know they are equivalent?

EXAMPLE 1on p. 18
for Exs. 3–19**VARIABLE ON ONE SIDE** Solve the equation. Check your solution.

3. $x + 8 = 11$

4. $y - 4 = 7$

5. $z - 13 = -1$

6. $-3 = w + 5$

7. $5d = 30$

8. $4 = \frac{2}{5}g$

9. $\frac{9}{2}h = -1$

10. $-16k = -8$

11. $6m - 3 = 21$

12. $4n - 10 = 12$

13. $3 = 2p + 5$

14. $-3q + 4 = 13$

15. $1 = \frac{1}{3}a - 5$

16. $\frac{3}{11}b + 5 = 5$

17. $7 - \frac{5}{3}c = 22$

18. $3 + \frac{8}{7}d = -1$

- 19.
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- TAKS PRACTICE AND REASONING**
- What is the solution of
- $4x - 7 = -15$
- ?

(A) -12

(B) -2

(C) 2

(D) $\frac{11}{2}$

EXAMPLE 3on p. 19
for Exs. 20–32**VARIABLE ON BOTH SIDES** Solve the equation. Check your solution.

20. $3a + 4 = 2a + 15$

21. $5w + 2 = 2w + 5$

22. $6x + 7 = 2x + 59$

(23.) $5b - 4 = 2b + 8$

24. $3y + 7 = y - 3$

25. $2z - 3 = 6z + 25$

26. $4n - 7 = 5 - 2n$

27. $2c + 14 = 6 - 4c$

28. $5m - 2 = -m - 2$

29. $p + 5 = 25 - 4p$

30. $6 - 5q = q + 9$

31. $17 - 6r = 25 - 3r$

- 32.
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- TAKS PRACTICE AND REASONING**
- What is the solution of
- $7t - 5 = 3t + 11$
- ?

(A) $-\frac{3}{2}$

(B) $\frac{3}{2}$

(C) $\frac{8}{5}$

(D) 4