

NAME _____

DATE _____

Module 3 Solving Linear Equations
of One Variable

Lesson 2 Solving Equations by Inspection



**independent
practice**

Solve each equation by inspection and write the solution in proper notation.
Check your solution.

- | | |
|------------------------------|-------------------------------|
| 1. $x + 8 = 10$ _____ | 2. $y + 4 = 9$ _____ |
| 3. $7 + m = 15$ _____ | 4. $9 + n = 18$ _____ |
| 5. $c - 3 = 7$ _____ | 6. $b - 2 = 14$ _____ |
| 7. $15 - r = 6$ _____ | 8. $12 - s = 5$ _____ |
| 9. $a + 5 = 5$ _____ | 10. $f + 1 = 1$ _____ |
| 11. $P - 6 = 0$ _____ | 12. $V - 0 = 0$ _____ |
| 13. $3w = 27$ _____ | 14. $5z = -25$ _____ |
| 15. $-11z = 0$ _____ | 16. $12s = 36$ _____ |
| 17. $P \div 3 = 6$ _____ | 18. $D \div 2 = -8$ _____ |
| 19. $14 \div G = 2$ _____ | 20. $22 \div V = 11$ _____ |
| 21. $\frac{K}{9} = 0$ _____ | 22. $-\frac{M}{5} = 0$ _____ |
| 23. $\frac{12}{n} = 3$ _____ | 24. $\frac{35}{x} = -7$ _____ |

Journal

1. Explain why the use of variables helps in solving equations by inspection.
2. Explain what it means to substitute for a variable. Use an example in your explanation.
3. When solving equations, is solving by inspection always the best alternative?
4. Explain why checking is a valuable tool in solving equations.
5. Describe how to use mental math to solve equations.

Cumulative Review

Use the order of operations to simplify.

1. $5 - 12 \div (-4)$ _____

2. $2 + 3(2 - 7)$ _____

3. $6^2 + 7^2$ _____

4. $-4^2 + (-3)^2$ _____

5. $\sqrt[3]{-8} + 5$ _____

6. $-|7| + \sqrt{49} \div 7$ _____

Evaluate $2L + 2W$ for the following values.

7. $L = 16; W = 25$ _____

8. $L = 12; W = 43$ _____

Evaluate $b^2 - 4ac$ for the following values.

9. $a = 2; b = -3; c = 5$ _____

10. $a = 1; b = -4; c = 4$ _____

