

Name _____

Date _____

Practice Set 7.6
Solving Quadratic Equations by Factoring

Solve each equation using the zero-product principle.

1. $a(a + 4) = 0$ 1. _____

2. $2x(x - 5) = 0$ 2. _____

3. $(y - 3)(y + 7) = 0$ 3. _____

4. $(2x - 1)(3x + 4) = 0$ 4. _____

Use factoring to solve each quadratic equation.

5. $x^2 + 7x + 12 = 0$ 5. _____

6. $x^2 + 3x - 10 = 0$ 6. _____

7. $x^2 - x = 20$ 7. _____

8. $x^2 - 16 = 0$ 8. _____

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

10. $10a^2 = 3a + 4$ 10. _____

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11. $7x^2 = 28x$

11. _____

12. $x(x + 6) = 40$

12. _____

13. $(x + 1)(x + 2) = 12$

13. _____

14. $3x^2 - 5x + 2 = 0$

14. _____

15. $8x^2 + 2x = 1$

15. _____

16. $(x + 1)^2 = 3x + 7$

16. _____

17. $(x + 6)(x - 2) = -7$

17. _____

Solve each problem.

18. The product of two positive numbers is 150. One number is 5 less than twice the other number. Find the two numbers.

18. _____

19. The area of a rectangle is 32 square inches. The length is 4 more than the width. Find the dimensions of the rectangle.

19. _____

20. One number is 3 more than another number. The sum of their squares is 29. Find the two numbers.

20. _____