

NAME _____

Module 13 Solving Quadratic Equations
of One Variable
Lesson 3 Solving Quadratic Equations
by Factoring

**additional
practice**

Solve by the factoring method.

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

{4, -3}

3. $x(x + 6) = 0$

{0, -6}

5. $(3w + 4)(2w - 1) = 0$

{ $-\frac{4}{3}, \frac{1}{2}$ }

7. $x^2 + 12x + 35 = 0$

{-5, -7}

9. $n^2 + 16n + 63 = 0$

{-9, -7}

11. $x^2 + 7x + 6 = 0$

{-6, -1}

13. $x^2 + 9x = 0$

{0, -9}

15. $x^2 + 2x - 25 = 9x + 35$

{12, -5}

17. $x^2 + 19x + 42 = 2x + 42$

{0, -17}

19. $3K^2 - 12K + 23 = 2K^2 - 4$

{3, 9}

2. $(x - 6)(x - 8) = 0$

{6, 8}

4. $6m(2m - 3) = 0$

{0, $\frac{3}{2}$ }

6. $(5y + 6)(y - 3) = 0$

{ $-\frac{6}{5}, 3$ }

8. $x^2 - 3x - 28 = 0$

{7, -4}

10. $s^2 + 4s - 32 = 0$

{-8, 4}

12. $x^2 + 15x - 54 = 0$

{-18, 3}

14. $z^2 - 6z = 0$

{0, 6}

16. $P^2 + 12P + 32 = 15P + 50$

{-3, 6}

18. $5x^2 - 13x + 20 = 5 + x^2 - 25x + 15$

{-3, 0}

20. $5R^2 + R - 12 = 4R^2 - 3R$

{-6, 2}

21. $42x^2 + 13x - 3 = -4x + 1$

$\left\{\frac{1}{6}, -\frac{4}{7}\right\}$

23. $25x^2 - 20x + 30 = 20x + 14$

$\left\{\frac{4}{5}\right\}$

22. $12x^2 + 28x + 19 = -3x^2 - 6x + 4$

$\left\{-\frac{5}{3}, -\frac{3}{5}\right\}$

24. $20x^2 - 13x + 3 = -16x^2 - x + 2$

$\left\{\frac{1}{6}\right\}$
