

3.4 Practice B

In Exercises 1–8, solve the equation using the Quadratic Formula.

1. $x^2 + 3x - 4 = 0$

2. $4x^2 + 8x + 4 = 0$

3. $x^2 + 5x + 20 = 0$

4. $4x^2 - 3x - 5 = 0$

5. $x^2 + 12x = 15$

6. $3x^2 - 6x = -25$

In Exercises 7 – 10, find the discriminant of the quadratic equation and describe the number and type of solutions of the equation.

7. $5x^2 - 4x + 2 = 0$

8. $14x + 49 = -x^2$

9. $-12h = 3h^2 + 1$

10. $-2x^2 + x = 3$

In Exercises 11 and 12, use the Quadratic Formula to write a quadratic equation that has the given solutions.

11. $x = \frac{10 \pm \sqrt{-68}}{14}$

12. $x = \frac{-3 \pm 5i}{8}$

In Exercises 18–21, solve the quadratic equation using the Quadratic Formula. Then solve the equation using another method. Which method do you prefer? Explain.

13. $7x^2 + 7 = 14x$

14. $x^2 + 20x = 8$

15. $x^2 + 2 = -x$

16. $8x^2 - 48x + 64 = 0$