

LESSON
4.3**Practice B**

For use with pages 252–258

Factor the expression. If the expression cannot be factored, say so.

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|---------------------|----------------------|---------------------|
| 1. $x^2 + 4x - 21$ | 2. $x^2 - 6x + 5$ | 3. $x^2 + 6x + 8$ |
| 4. $x^2 - x - 6$ | 5. $x^2 - x - 12$ | 6. $x^2 - 2x - 8$ |
| 7. $x^2 - 9x + 20$ | 8. $x^2 + 3x - 18$ | 9. $x^2 - 9$ |
| 10. $x^2 + 8x + 16$ | 11. $x^2 - 11x + 28$ | 12. $x^2 - 2x + 2$ |
| 13. $x^2 + 4x - 32$ | 14. $x^2 - 3x - 10$ | 15. $x^2 - 25$ |
| 16. $x^2 - 9x + 14$ | 17. $x^2 - 100$ | 18. $x^2 - 8x - 15$ |

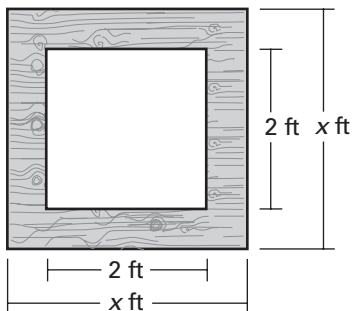
Solve the equation.

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|------------------------|--------------------------|--------------------------|
| 19. $x^2 + x - 6 = 0$ | 20. $x^2 + 3x - 10 = 0$ | 21. $x^2 - 5x + 6 = 0$ |
| 22. $x^2 - 4x + 4 = 0$ | 23. $x^2 + 7x + 12 = 0$ | 24. $x^2 - 3x - 28 = 0$ |
| 25. $x^2 - 36 = 0$ | 26. $x^2 - 2x - 15 = 0$ | 27. $x^2 - 11x + 18 = 0$ |
| 28. $3x^2 = 48$ | 29. $x^2 - 7x - 4 = -10$ | 30. $9x - 8 = x^2$ |

Find the zeros of the function by rewriting the function in intercept form.

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|-----------------------------|----------------------------|----------------------------|
| 31. $y = x^2 + 8x + 15$ | 32. $y = x^2 - 12x + 32$ | 33. $f(x) = x^2 - 2x - 35$ |
| 34. $y = x^2 - x - 30$ | 35. $g(x) = x^2 + 10x + 9$ | 36. $y = x^2 - 6x$ |
| 37. $h(x) = x^2 - 12x + 27$ | 38. $y = x^2 - 9$ | 39. $y = x^2 + 16x + 64$ |

- 40. Picture Frame** You are making a square frame of uniform width for a square picture that has side lengths of 2 feet. The total area of the frame is 5 square feet. What is the length of the sides of the frame?



- 41. Concert Stage** The dimensions of the old stage at the concert hall were 30 feet wide and 15 feet deep. The new stage has a total area of 1000 square feet. The dimensions of the new stage were created by adding the same distance x to the width and the depth of the old stage dimensions. What is the value of x ?