

7.7 Notetaking with Vocabulary (continued)**Extra Practice**

In Exercises 1–6, factor the polynomial.

1. $s^2 - 49$

2. $t^2 - 81$

3. $16 - x^2$

4. $4g^2 - 25$

5. $36h^2 - 121$

6. $81 - 49k^2$

In Exercises 7–12, use a special product pattern to evaluate the expression.

7. $57^2 - 53^2$

8. $38^2 - 32^2$

9. $68^2 - 64^2$

10. $45^2 - 40^2$

11. $79^2 - 71^2$

12. $86^2 - 84^2$

7.7 Notetaking with Vocabulary (continued)

In Exercises 13–18, factor the polynomial.

13. $x^2 + 16x + 64$

14. $p^2 + 28p + 196$

15. $r^2 - 26r + 169$

16. $a^2 - 18a + 81$

17. $36c^2 + 84c + 49$

18. $100x^2 - 20x + 1$

In Exercises 19–24, solve the equation.

19. $x^2 - 144 = 0$

20. $9y^2 = 49$

21. $c^2 + 14c + 49 = 0$

22. $d^2 - 4d + 4 = 0$

23. $n^2 + \frac{2}{3}n = -\frac{1}{9}$

24. $-\frac{6}{5}k + \frac{9}{25} = -k^2$

25. The dimensions of a rectangular prism are $(x + 1)$ feet by $(x + 2)$ feet by 4 feet. The volume of the prism is $(24x - 1)$ cubic feet. What is the value of x ?