

Practice 10-5

..... *Example Exercises*

Example 1

Factor each expression.

1. $x^2 - 4$

2. $a^2 - 16$

3. $x^2 - 49$

4. $f^2 - 81$

5. $x^2 - 25$

6. $h^2 - 1$

7. $w^2 - 144$

8. $x^2 - 225$

9. $x^2 - 196$

10. $y^2 - 625$

11. $x^2 - 400$

12. $b^2 - 100$

Example 2

Factor each expression.

13. $4x^2 - 9$

14. $9x^2 - 25$

15. $16n^2 - 1$

16. $25m^2 - 4$

17. $49x^2 - 144$

18. $25a^2 - 64$

19. $16x^2 - 81$

20. $64n^2 - 169$

21. $100x^2 - 49$

Example 3

Factor each expression.

22. $x^2 + 8x + 16$

23. $a^2 - 10a + 25$

24. $x^2 + 14x + 49$

25. $f^2 + 16f + 64$

26. $x^2 + 12x + 36$

27. $x^2 - 18x + 81$

28. $x^2 - 22x + 121$

29. $x^2 + 24x + 144$

30. $y^2 - 20y + 100$

Example 4

Factor each expression.

31. $4x^2 + 4x + 1$

32. $9x^2 - 6x + 1$

33. $4x^2 - 12x + 9$

34. $9x^2 + 24x + 16$

35. $4x^2 + 20x + 25$

36. $25c^2 - 40c + 16$

37. $49x^2 - 28x + 4$

38. $16x^2 - 24x + 9$

39. $64x^2 + 112x + 49$

Example 5

Factor each expression.

40. $2d^2 - 18$

41. $3x^2 - 12$

42. $12w^2 - 27$

43. $2x^2 + 20x + 50$

44. $3x^2 - 12x + 12$

45. $4h^3 - 36h$

46. $2x^2 + 4x + 2$

47. $4x^2 + 24x + 36$

48. $n^3 - 8n^2 + 16n$