

P. 603 # 3-31 odd

DIFFERENCE OF TWO SQUARES Factor the polynomial.

3. $x^2 - 25$

5. $81c^2 - 4$

7. $-3m^2 + 48n^2$

PERFECT SQUARE TRINOMIALS Factor the polynomial.

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

11. $49a^2 + 14a + 1$

13. $m^2 + m + \frac{1}{4}$

FACTORING POLYNOMIALS Factor the polynomial.


15. $4c^2 - 400$

17. $-9r^2 + 4s^2$

19. $72 - 32y^2$

ERROR ANALYSIS Describe and correct the error in factoring.

21.

$$\begin{aligned} 36x^2 - 81 &= 9(4x^2 - 9) \\ &= 9((2x)^2 - 3^2) \\ &= 9(2x - 3)^2 \end{aligned}$$


23. ★ **MULTIPLE CHOICE** Which is the correct factorization of $-45x^2 + 20y^2$?

Ⓐ $-5(3x + 2y)^2$

Ⓑ $5(3x - 2y)^2$

Ⓒ $-5(3x + 2y)(3x - 2y)$

Ⓓ $5(3x + 2y)(3x - 2y)$

SOLVING EQUATIONS Solve the equation.

25. $x^2 + 8x + 16 = 0$

27. $4w^2 - 36 = 0$

29. $27c^2 + 108c + 108 = 0$

31. $6p^2 = 864$