

7.1 part 1 pg 264 8-11

$$8. \begin{array}{l} 2y - 3 - y^2 \\ -y^2 + 2y - 3 \end{array}$$

$$9. \begin{array}{l} 3x^2 - 2x + x^3 + 6 \\ x^3 + 3x^2 - 2x + 6 \end{array}$$

$$10. (x^2 + 2x - 4) + (2x^2 - 5x - 3)$$

$$\begin{array}{l} \boxed{x^2} + \boxed{2x} - 4 + \boxed{2x^2} + \boxed{-5x} - 3 \\ \hline \boxed{3x^2 - 3x - 7} \end{array}$$

$$11. (3x^2 - 5x - 8) - (-4x^2 - 2x - 1)$$

$$\begin{array}{l} 3x^2 - 5x - 8 + 4x^2 + 2x + 1 \\ 7x^2 - 3x - 7 \end{array}$$

7.1 part 2 pg 265 27-35

$$27. \begin{array}{l} 3x + 2x^2 - 4x + 3x^2 - 5x \\ 5x^2 - 6x \end{array}$$

$$28. \begin{array}{l} 5 + 8y^2 - 12y^2 + 3y \\ -4y^2 + 3y + 5 \end{array}$$

$$29. \begin{array}{l} 3z - 7z^2 - 5z + 5z^2 + 2z^2 \\ -2z \end{array}$$

$$30. \begin{array}{l} 7 - 2x + 3 + 5x + 4x^2 \\ 4x^2 + 3x + 10 \end{array}$$

$$31. \begin{array}{l} (3b - 8) + (7b + 4) \\ 10b - 4 \end{array}$$

$$32. \begin{array}{l} (2x^2 - 7x^3 + 8x) + (-8x^3 - 3x^2 + 4) \\ -15x^3 - x^2 + 8x + 4 \end{array}$$

7.1 pt 2 cont

$$33. (5y^2 - 2y + 1) - (y^2 + y + 3)$$

$$5y^2 - 2y + 1 - y^2 - y - 3$$

$$\boxed{4y^2 - 3y - 2}$$

$$34. (-7a^4 - a + 4a^2) - (-8a^2 + a - 7a^4)$$

$$-7a^4 - a + 4a^2 + 8a^2 - a + 7a^4$$

$$\boxed{12a^2 - 2a}$$

$$35. (4m^2 - 2m + 4) + (2m^2 + 2m - 5)$$

$$\boxed{6m^2 - 1}$$

7.2 part 1 p. 273 18-21, 24-26

$$18. 6x(x^2 - 4x - 3)$$

$$6x^3 - 24x^2 - 18x$$

$$19. -y(-3y^2 + 2y - 7)$$

$$3y^3 - 2y^2 + 7y$$

$$20. 3x^2(-x^2 + 2x - 4)$$

$$-3x^4 + 6x^3 - 12x^2$$

$$21. -5x^3(2x^3 - 4x^2 + 2)$$

$$-10x^6 + 20x^5 - 10x^3$$

$$24. (x - 6)(x + 3)$$

$$x^2 + 3x - 6x - 18$$

$$\boxed{x^2 - 3x - 18}$$

$$25. (3x - 4)(2x + 5)$$

$$6x^2 + 15x - 8x - 20$$

$$\boxed{6x^2 + 7x - 20}$$

26.

$$(x - 8)(2x + 3)$$

$$2x^2 + 3x - 16x - 24$$

$$\boxed{2x^2 - 13x - 24}$$

7.2 pt 2 p. 272-273, # 8-9, 27-31

$$\begin{aligned} 8. \quad & (5y-2)(4y^2+3y-1) \\ & 20y^3 + 15y^2 - 5y \\ & \quad - 8y^2 - 6y + 2 \\ & \hline & \boxed{20y^3 + 7y^2 - 11y + 2} \end{aligned}$$

$$\begin{aligned} 9. \quad & (3x^2+2x-5)(2x-3) \\ & 6x^3 - 9x^2 \\ & \quad + 4x^2 - 6x \\ & \quad \quad + 10x + 15 \\ & \hline & \boxed{6x^3 - 5x^2 + 4x + 15} \end{aligned}$$

$$\begin{aligned} 27. \quad & (y+3)(2y^2-3y+4) \\ & 2y^3 - 6y^2 + 4y \\ & \quad + 6y^2 - 9y + 12 \\ & \hline & \boxed{2y^3 - 5y + 12} \end{aligned}$$

$$\begin{aligned} 28. \quad & (2x-7)(3x^2-4x+1) \\ & 6x^3 - 8x^2 + 2x \\ & \quad - 21x^2 + 28x - 7 \\ & \hline & \boxed{6x^3 - 29x^2 + 30x - 7} \end{aligned}$$

$$\begin{aligned} 29. \quad & (2x^2-3x)(-3x^2+4x-2) \\ & -6x^4 + 8x^3 - 4x^2 \\ & \quad + 9x^3 - 12x^2 + 6x \\ & \hline & \boxed{-6x^4 + 17x^3 - 16x^2 + 6x} \end{aligned}$$

$$\begin{aligned} 30. \quad & (-2x^2+1)(2x^2-3x-7) \\ & -4x^4 + 6x^3 - 14x \\ & \quad \quad \quad + 2x^2 - 3x - 7 \\ & \hline & \boxed{-4x^4 + 6x^3 + 2x^2 - 17x - 7} \end{aligned}$$

$$\begin{aligned} 31. \quad & (x^2+3x)(3x^2-2x+4) \\ & 3x^4 - 2x^3 + 4x^2 \\ & \quad - 9x^3 + 6x^2 + 12x \\ & \hline & \boxed{3x^4 - 11x^3 + 10x^2 + 12x} \end{aligned}$$

7.3 p 279 16-24 even, 28-32 even

$$\begin{aligned} 16. & (y+9)(y+9) \\ & y^2 + 9y + 9y + 81 \\ & \boxed{y^2 + 18y + 81} \end{aligned}$$

$$\begin{aligned} 18. & (a+11)(a+11) \\ & a^2 + 11a + 11a + 121 \\ & \boxed{a^2 + 22a + 121} \end{aligned}$$

$$\begin{aligned} 20. & (p+15)^2 \\ & (p+15)(p+15) \\ & p^2 + 15p + 15p + 225 \\ & \boxed{p^2 + 30p + 225} \end{aligned}$$

$$\begin{aligned} 22. & (x-4y)^2 \\ & (x-4y)(x-4y) \\ & x^2 - 4xy - 4xy + 16y^2 \\ & \boxed{x^2 - 8xy + 16y^2} \end{aligned}$$

$$\begin{aligned} 24. & \left(\frac{2}{5}x + \frac{1}{5}\right)^2 \\ & \left(\frac{2}{5}x + \frac{1}{5}\right)\left(\frac{2}{5}x + \frac{1}{5}\right) \\ & \frac{4}{25}x^2 + \frac{2}{25}x + \frac{2}{25}x + \frac{1}{25} \end{aligned}$$

$$\begin{aligned} 28. & (x-12)(x+12) \\ & x^2 + 12x - 12x - 144 \\ & \boxed{x^2 - 144} \end{aligned}$$

$$\boxed{\frac{4}{25}x^2 + \frac{4}{25}x + \frac{1}{25}}$$

$$\begin{aligned} 30. & (3a-4b)(3a+4b) \\ & 9a^2 + 12ab - 12ab - 16b^2 \\ & \boxed{9a^2 - 16b^2} \end{aligned}$$

$$\begin{aligned} 32. & \left(\frac{1}{4}x - \frac{2}{3}\right)\left(\frac{1}{4}x + \frac{2}{3}\right) \\ & \frac{1}{16}x^2 + \frac{2}{12}x - \frac{2}{12}x - \frac{4}{9} \\ & \boxed{\frac{1}{16}x^2 - \frac{4}{9}} \end{aligned}$$