SECTION 6.2

1. $\frac{9y^3}{12x^2y^4}, \frac{17x}{12x^2y^4}$ **3.** $\frac{2x^2 - 4x}{6x^2(x-2)}, \frac{3x-6}{6x^2(x-2)}$ **5.** $\frac{3x-1}{2x(x-5)}, -\frac{6x^3 - 30x^2}{2x(x-5)}$ **7.** $\frac{6x^2+9x}{(2x-3)(2x+3)}, \frac{10x^2-15x}{(2x-3)(2x+3)}$

9. $\frac{2x}{(x+3)(x-3)}, \frac{x^2+4x+3}{(x+3)(x-3)}$ **11.** $\frac{6}{6(x+2y)(x-2y)}, \frac{5x+10y}{6(x+2y)(x-2y)}$ **13.** $\frac{3x^2-3x}{(x+1)(x-1)^2}, \frac{5x^2+5x}{(x+1)(x-1)^2}$

15. $-\frac{x-3}{(x-2)(x^2+2x+4)}, \frac{2x-4}{(x-2)(x^2+2x+4)}$ **17.** $\frac{2x^2+6x}{(x-1)(x+3)^2}, -\frac{x^2-x}{(x-1)(x+3)^2}$

19. $-\frac{12x^2-8x}{(2x-3)(2x-5)(3x-2)}, \frac{6x^2-9x}{(2x-3)(2x-5)(3x-2)}$ **21.** $\frac{5}{(3x-4)(2x-3)}, -\frac{4x^2-6x}{(3x-4)(2x-3)}, \frac{3x^2-x-4}{(3x-4)(2x-3)}$

23. $\frac{2x^2+10x}{(x-3)(x+5)}, -\frac{2x-6}{(x-3)(x+5)}, -\frac{x-1}{(x-3)(x+5)}$ **25.** $\frac{x-5}{(x^n+1)(x^n+2)}, \frac{2x^{n+1}+2x}{(x^n+1)(x^n+2)}$ **27.** $\frac{1}{2x^2}$ **29.** $\frac{1}{x+2}$

31. $\frac{12ab-9b+8a}{30a^2b^2}$ **33.** $\frac{5-16b+12a}{40ab}$ **35.** $\frac{7}{12x}$ **37.** $\frac{2xy-8x+3y}{10x^2y^2}$ **39.** $-\frac{a(2a-13)}{(a-2)(a+1)}$ **41.** $\frac{5x^2-6x+10}{(2x-5)(5x-2)}$

43. $\frac{a}{b(a-b)}$ **45.** $\frac{a^2+18a-9}{a(a-3)}$ **47.** $\frac{17x^2+20x-25}{x(6x-5)}$ **49.** $\frac{6}{(x+3)(x-3)^2}$ **51.** $-\frac{2(x-1)}{(x+2)^2}$ **53.** $-\frac{5x^2-17x+8}{(x+4)(x-2)}$

55. $\frac{3x^n+2}{(x^n+1)(x^n-1)}$ **57.** 1 **59.** $\frac{x^2-52x+160}{4(x+3)(x-3)}$ **61.** $\frac{3x-1}{4x+1}$ **63.** $\frac{2(5x-3)}{(x+3)(x+4)(x-3)}$ **65.** $\frac{x-2}{x+3}$

67. 1 **69.** $\frac{x+1}{2x-1}$ **71.** $\frac{1}{2x-1}$ **73.** $\frac{1}{x^2+4}$ **75.** $\frac{3-a}{3a}$ **77.** $-\frac{2x^2+5x-2}{(x+2)(x+1)}$ **79.** $\frac{b-a}{b+2a}$ **81.** $\frac{2}{x+2}$

83a. $\frac{4x+15}{20}$ **b.** $\frac{4x+5}{4}$ **c.** $\frac{x+y}{xy}$ **85a.** $\frac{3}{y}+\frac{6}{x}$ **b.** $\frac{4}{b^2}+\frac{3}{ab}$ **c.** $\frac{1}{4mn}+\frac{1}{6m^2}$