

p. 198-199, # 18-40 even (exempt 32)

$$18. \frac{x-5}{3x+4} - \frac{3x-5}{3x+4} = \frac{x-5-3x+5}{3x+4} = \boxed{\frac{-2x}{3x+4}}$$

$x \neq -\frac{4}{3}$

$$20. \frac{12x^2y^3}{2 \cdot 2 \cdot 3 \cdot x^2y^3}; \frac{14x^3y^2}{2 \cdot 7 \cdot x^3y^2} = 2 \cdot 2 \cdot 3 \cdot 7 \cdot x^3y^3 = \boxed{84x^3y^3}$$

$$22. \frac{(4x-1)3x-2}{(4x-1)x+2} + \frac{2x(x+2)}{4x-1(x+2)} = \frac{12x^2-11x+2+2x^2+4x}{(4x-1)(x+2)} = \boxed{\frac{14x^2-7x+2}{(4x-1)(x+2)}}$$

$x \neq -2, \frac{1}{4}$

$$24. \frac{5x}{4x^2} + \frac{7}{x+1} = \frac{(x+1)5}{(x+1)4x} + \frac{7(4x)}{x+1(4x)} = \frac{5x+5+28x}{4x(x+1)} = \boxed{\frac{33x+5}{4x(x+1)}}$$

$x \neq 0, -1$

$$26. \frac{(2x-3)x}{(2x-3)2x+3} - \frac{2x+1(2x+3)}{2x-3(2x+3)} = \frac{2x^2-3x-(4x^2+8x+3)}{(2x-3)(2x+3)}$$

$x \neq \pm \frac{3}{2}$

$$= \frac{-2x^2-11x-3}{(2x-3)(2x+3)} = \boxed{\frac{-(2x^2+11x+3)}{(2x-3)(2x+3)}}$$

$$28. \frac{2x-5}{x^2-9} \cdot \frac{x+3}{3x-1} = \frac{(2x-5)(x+3)}{(x-3)(x+3)(3x-1)} = \boxed{\frac{2x-5}{(x-3)(3x-1)}}$$

$$30. \frac{\frac{x}{x+1}}{\frac{3 \cdot \frac{x+x}{3}}{3}} = \frac{\frac{x}{x+1}}{\frac{3x+x}{3}} = \frac{x}{x+1} \cdot \frac{3}{4x} = \boxed{\frac{3}{4(x+1)}}$$

$$34. \frac{2x}{x^2-36} + \frac{x+4}{x+6} \cdot \frac{(x-6)}{(x-6)} = \frac{2x+x^2-2x-24}{(x+6)(x-6)} = \boxed{\frac{x^2-24}{(x+6)(x-6)}}$$

$x \neq 6, -6$

$$36. \frac{7x}{x^2-5x} + \frac{x^2-x-7}{x-5} = \frac{x^2}{x-5} = \boxed{\frac{x^2+7}{x-5}}$$

$x(x-5)$   
 $x \neq 0, 5$

$$38. \frac{3 \cdot \frac{2x+3}{3x+4}}{3} - \frac{x}{3(3x+4)} = \frac{6x+9-x}{3(3x+4)} = \boxed{\frac{5x+9}{3(3x+4)}}$$

$x \neq -4/3$

$$40. \frac{6}{(x+8)(x-4)} - \frac{(x-5) \cdot (x+8)}{(x-4)(x+8)} = \frac{6-(x^2+3x-40)}{(x-4)(x+8)}$$

$x \neq -8, 4$

$$= \frac{-x^2-3x+46}{(x-4)(x+8)} = \boxed{\frac{-(x^2+3x-46)}{(x-4)(x+8)}}$$