2. $\frac{(x+2)(x-1)}{(x+3)(x-1)}$

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

4. $\frac{(3x+2)(2x+1)}{(3x+2)(2x-3)}$

5. $\frac{(x+4)(x-4)}{(x+5)} \cdot \frac{2(x+5)}{(x-4)}$

6. $\frac{(x+6)(x+3)}{(2+x)(2-x)} \cdot \frac{(2-x)}{x(x+6)}$

7. $\frac{x(x+1)(x-1)}{2x(x+6)} \cdot \frac{(x-3)}{(x-1)(x-3)}$

8. $\frac{4x^3}{9x^2y} \cdot \frac{9y^5}{16} = \frac{4x}{9y} \cdot \frac{9y^5}{16} = \frac{36xy^5}{144y} = \frac{1xy^4}{4}$

9. $\frac{8m^2}{4(m+4)} \cdot \frac{(m+3)}{2m(m+3)} = \frac{2m^2}{2x(m+4)} = \frac{m}{(m+4)}$

10. $\frac{(x+2)(x-2)}{(x-3)(x+2)} \cdot \frac{-3(x-3)}{2(x-2)} = \frac{-3}{2}$

12. $(x-3)(x+1) + (x-3)(x+2)$

13. $2(x-1) + 3(x-1)$

14. $(2x+1)(x-3) + (x+3)(x-3)$

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

16. $\frac{4}{(x+2)(x-2)} + \frac{2x}{(x+2)(x-2)} = \frac{4x+8}{(x+2)(x-2)} + \frac{2x}{(x+2)(x-2)}$

$= \frac{4x+8+2x}{(x+2)(x-2)} = \frac{6x+8}{(x+2)(x-2)} = \frac{2(3x+4)}{(x+2)(x-2)}$

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

$= \frac{x+4+2x^2+6x}{(x-4)(x+3)} = \frac{2x^2+7x+4}{(x-4)(x+3)}$

18. $\frac{x^2-4-5x-10}{x-4} = \frac{x^2-5x-14}{(x-4)} = \frac{(x-7)(x+2)}{(x-4)}$

19. $\frac{4}{(x-1)(x+4)} - \frac{3}{(x-1)} \cdot \frac{(x+4)}{(x+4)} = \frac{4x-4}{(x-1)(x+4)} - \frac{3x+12}{(x-1)(x+4)}$

$= \frac{4x-4-3x-12}{(x-1)(x+4)} = \frac{x-16}{(x-1)(x+4)}$

20. $\frac{x+6}{(x-9)(x+2)} - \frac{2x}{(x-9)} \cdot \frac{(x+2)}{(x+2)} = \frac{x+6}{(x-9)(x+2)} - \frac{2x^2+4x}{(x-9)(x+2)}$

$= \frac{x+6-2x^2-4x}{(x-9)(x+2)} = \frac{-2x^2-3x+6}{(x-9)(x+2)}$

/ /

21. $\frac{20}{x-1} \div \frac{6}{3x-3} = \frac{20}{(x-1)} \cdot \frac{3(x-1)}{6_2} = \frac{20}{2} = 10$

22. $\frac{8x}{(x-3)} \div \frac{x^2}{2} = \frac{8x}{(x-3)} \cdot \frac{2}{x^2} = \frac{16x}{x^2(x-3)} = \frac{16}{x(x-3)}$

23. $\frac{x^2-9}{x+2} \div \frac{3x-9}{x^2+x-2} = \frac{(x+3)(x-3)}{(x+2)} \cdot \frac{(x+2)(x-1)}{3(x-3)}$

24. $\frac{3x-4}{(x+1)(x-1)} - \frac{(6x+1)}{(x+1)} \cdot \frac{(x-1)}{(x-1)}$

$6x^2 - 6x + x - 1$

$\frac{3x-4}{(x+1)(x-1)} - \frac{6x^2-5x-1}{(x+1)(x-1)} = \frac{3x-4-6x^2+5x+1}{(x+1)(x-1)}$

$-1(6x^2-8x+3)$

$(2x-1)(3x-3)$

$= \frac{-6x^2+8x-3}{(x+1)(x-1)}$

25. $\frac{x-3}{(x+4)(x-1)} + \frac{2x \cdot (x-1)}{(x+4) \cdot (x-1)} =$

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

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

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