

Simplify each fraction.

Remember to look for easy number factors first, then factorise (spot "difference of two squares") and see if you can divide out any common factor top and bottom.

1. $\frac{8x^2}{2x}$

2. $\frac{15x^2y^3}{3xy}$

3. $\frac{18a^2b}{24a^3}$

4. $\frac{(x+2)^2}{(x+2)}$

5. $\frac{2(x-5y)}{3(x-5y)^2}$

6. $\frac{4x+12}{3x+9}$

7. $\frac{24-8x}{3x-9}$

8. $\frac{(4x+12)^2}{3x+9}$

9. $\frac{32x^3-24x^2}{40x}$

10. $\frac{x^2+7x+12}{x+4}$

12. $\frac{x^2+9x+20}{x^2+13x+36}$

13. $\frac{5x+35}{x^2+11x+28}$

14. $\frac{2x^2+2x-12}{3x^2+6x-24}$

15. $\frac{y+3}{y^2-9}$

16. $\frac{a+4}{5a^2-80}$

17. $\frac{2x^2+9x+10}{3x^2-x-14}$

18. $\frac{5x^2+4x-33}{7x^2+13x-24}$

19. $\frac{6x^2+5x-6}{10x^2+23x+12}$

20. $\frac{2x}{3} + \frac{3x}{5}$

21. $\frac{2}{3x} + \frac{3x}{2}$

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

23. $\frac{3}{x-1} - \frac{2}{x^2-1}$

24. $\frac{x}{x^2+2x-24} + \frac{2x}{x-4}$

25. $\frac{x+1}{x-1} + \frac{x-1}{x+1}$