

Beispiel:
$$\frac{5x+1}{3x} + \frac{x+4}{3} = \frac{5x+1+x(x+4)}{3x} = \frac{5x+1+x^2+4x}{3x} = \frac{x^2+9x+1}{\underline{\underline{3x}}}$$

1.
$$\frac{1}{x} + \frac{1}{x^2} + \frac{1}{x^3} =$$

2.
$$\frac{4}{x} - \frac{2}{x^2} + \frac{1}{2x} =$$

3.
$$\frac{1}{ax} - \frac{a}{2x} + \frac{1}{ax^2} =$$

1 Nenner faktorisieren

2 Hauptnenner bestimmen

3 Erweitern

4 Zähler ausrechnen (!wenn - vor dem Bruch, immer () benutzen)

5 Zähler faktorisieren

6 kürzen

Beispiel:
$$\frac{4}{x+2} + \frac{16}{x^2-4} = \frac{4}{(x+2)} + \frac{16}{(x+2)(x-2)} = \frac{4(x-2)+16}{(x+2)(x-2)} = \frac{4x-8+16}{(x+2)(x-2)} =$$

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

4.
$$\frac{1}{a} + \frac{1}{a+b} =$$

5.
$$\frac{1}{a+b} + \frac{1}{a-b} =$$

6.
$$\frac{1}{x+1} + \frac{1}{x+2} =$$

$$7. \frac{1}{x+y} + \frac{1}{x-y} =$$

$$8. \frac{1}{x+y} - \frac{1}{x-y} =$$

$$9. \frac{x+y}{x-y} + \frac{x-y}{x+y} =$$

$$10. \frac{x+y}{x-y} - \frac{x-y}{x+y} =$$

$$11. \frac{2a}{a-b} - \frac{a-b}{a+b} =$$

$$12. \frac{a+b}{a-b} + \frac{a}{b} =$$

$$13. \frac{a}{a-b} + 1 =$$

$$14. 1 - \frac{a}{a+b} =$$

$$15. \frac{1}{x+1} - \frac{1}{x+2} =$$

$$16. \frac{2}{u-1} + \frac{4}{u+2} =$$