

Binomische Formeln anwenden

$$(a + b)^2 = a^2 + 2ab + b^2$$

$$(a - b)^2 = a^2 - 2ab + b^2$$

$$(a + b)(a - b) = a^2 - b^2$$

Faktorisiere die Terme oder löse die Klammern auf!

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|-----------------------|------------------------------|------------------------|-------------------------|------------------------|
| $(x+1)^2$ | $a^2+2ab+b^2$ | $4x^2-4x+1$ | $-x^2+1$ | $16x^2-25$ |
| $(1-x)^2$ | a^2+6a+9 | a^2+ab+b^2 | $(-2+x)^2$ | $(x-2)^2$ |
| $4a^2-b^2$ | $4b+4+b^2$ | $-6a+a^2+9$ | a^2+b^2 | $9-4x^2$ |
| $(9-2x)^2$ | $(x+1)(x-1)$ | $-1+x^2$ | $(-x+1)(1+x)$ | $10b+b^2+25$ |
| $(4x-1)(1+4x)$ | $(x-1)(-1+x)$ | $1-2x+x^2$ | $(-x-2)^2$ | $a^2-2ab-b^2$ |
| $(1+5x)^2$ | $5x^2-500$ | $12x^2+36x+27$ | $3x^2-18x+27$ | $100-5x^2$ |
| $-x^2-4$ | $(-1-7x)^2$ | $1+4x^2-4x$ | $4x-4x^2-1$ | x^2-2x-1 |
| $144-169x^2$ | $25+5x+x^2$ | $(-2x-5)^2$ | $(8x-2)(4x+1)$ | ax^2-a |
| $(3x-6)(x-2)$ | $(2x+6)(3+x)$ | x^2+4-5x^2 | $(x+2):(0,5x+1)$ | $(4x^2-1):(4x-2)$ |
| $(5ax-7)^2$ | $(4-4a^2):(1-a)$ | $(ax-2a)(x-2)$ | $(9-8x)^2$ | $(2x+3)(12-8x)$ |
| $(2+3abc)^2$ | $25-b+b^2-9b$ | $(2ax+3)(12+8ax)$ | $ab-abx^2$ | $9+x^2$ |
| $\frac{(a+b)^2}{a+b}$ | $\frac{x^2-1}{x-1}$ | $\frac{x^2-2x+1}{x-1}$ | $\frac{-1+x^2}{x+1}$ | $\frac{2-2a^2}{1-a^2}$ |
| $\frac{1-x^2}{x^2-1}$ | $\frac{(a+2)^2(a-2)}{a^2-4}$ | $\frac{2-3x}{4-9x^2}$ | $\frac{x^2+2x+1}{x-1}$ | $\frac{x^2-1}{-x^2+1}$ |
| $\frac{1-x^4}{x^2-1}$ | $\frac{1-x^2}{x^4-1}$ | $\frac{x-x^3}{x^2-1}$ | $\frac{x^3-x^5}{x^3-x}$ | $\frac{1-x^4}{x^2+1}$ |
| x^3+2x^2+x | x^4-b^2 | $4x^4-9b^4$ | $x^4+2x^2y^2+y^4$ | $9x^3+12xb+4b^2x$ |