

1.  $x^3y + x^2y - xy = xy(x^2 + x - 1)$
2.  $21f^2 + 42fg - 35fh = 7f(3f + 6g - 5h)$
3.  $42p^2q^2 - 54pq^3 - 72q^4 = 6q^2(7p^2 - 9pq - 12q^2)$
4.  $12a^3b - 15a^2b + 22ab^3 = ab(12a^2 - 15a + 22b^2)$

Klammere auch das (-) mit aus.

5.  $-b^2 - 2bc = -b(b + 2c)$
6.  $-4z^2 - 4z = -4z(z + 1)$
7.  $-18a^2 - 27ab - 9a = -9a(2a + 3b + 1)$
  
8.  $tx + 2ty + ux + 2uy = t(x+2y) + u(x+2y) = (t+u)(x+2y)$
9.  $2m - mq + 2n - nq = m(2-q) + n(2-q) = (m+n)(2-q)$
10.  $6ac + 3ad - 10bc - 5bd = 3a(2c+d) - 5b(2c+d) = (3a-5b)(2c+d)$
11.  $tu - tz - uy + yz = t(u-z) - y(u-z) = (t-y)(u-z)$
  
12.  $x^2 - 2x - 24 = (x+4)(x-6)$
13.  $x^2 - 10x - 24 = (x+2)(x-12)$
14.  $x^2 + x - 2 = (x+2)(x-1)$
15.  $x^2 - x - 2 = (x+1)(x-2)$
16.  $x^2 + x - 6 = (x+3)(x-2)$
17.  $x^2 - x - 6 = (x+2)(x-3)$
18.  $x^2 + 3x - 4 = (x+4)(x-1)$
19.  $x^2 - 3x - 4 = (x+1)(x-4)$
20.  $x^2 + x - 30 = (x+6)(x-5)$
  
21.  $x^2 + 8x + 15 = (x+3)(x+5)$
22.  $x^2 - 3x - 40 = (x-8)(x+5)$
23.  $x^2 - 12x + 20 = (x-10)(x-2)$
24.  $x^2 - x - 30 = (x-6)(x+5)$

25.  $x^2 + 2x - 3 = (x+3)(x-1)$
26.  $x^2 - 5x + 4 = (x-4)(x-1)$
27.  $x^2 + 6x - 7 = (x+7)(x-1)$
28.  $x^2 - 8x + 7 = (x-7)(x-1)$
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29.  $1 + 10c + 25c^2 = (1 + 5c)(1 + 5c)$
30.  $4d^2 - 20d + 25 = (2d - 5)(2d - 5)$
31.  $121x^2 - 144y^2 = (11x + 12y)(11x - 12y)$
32.  $169m^2 + 26m + 1 = (13m + 1)(13m + 1)$
33.  $c^2 - 8c + 16 = (c - 4)(c - 4)$
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34.  $x^6 - y^4 = (x^3 + y^2)(x^3 - y^2)$
35.  $49x^2 - 28x + 4 = (7x - 2)(7x - 2)$
36.  $9x^2 + 6x + 1 = (3x + 1)(3x + 1)$
37.  $16x^2 - 24xy + 9y^2 = (4x - 3y)(4x - 3y)$
38.  $36x^2 - 60xy + 25y^2 = (6x - 5y)(6x - 5y)$
39.  $64x^2y^2 - 9z^2 = (8xy + 3z)(8xy - 3z)$
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40.  $6s^2 - 6 = 6 (s^2 - 1) = 6 (s + 1)(s - 1)$
41.  $2x^2 - 4x + 2 = 2 (x^2 - 2x + 1) = 2 (x - 1)(x - 1)$
42.  $27d^2 + 18d + 3 = 3 (9d^2 + 6d + 1) = 3 (3d + 1)(3d + 1)$
43.  $3a^2 - 12b^2 = 3 (a^2 - 4b^2) = 3 (a + 2b)(a - 2b)$
44.  $2x^2 + 4xy + 2y^2 = 2 (x^2 + 2xy + y^2) = 2 (x + y)(x + y)$
45.  $5 + 50c + 125c^2 = 5 (1 + 10c + 25c^2) = 5 (1 + 5c)(1 + 5c)$
46.  $d^4 - 16 = (d^2 + 4)(d^2 - 4) = (d^2 + 4)(d + 2)(d - 2)$
47.  $wx^2 - 2wxy + wy^2 = w (x^2 - 2xy + y^2) = w (x - y)(x - y)$