

Aufgabe 7: Bifo?

a) $2(25x^2 - y^2) = 2(5x+y)(5x-y)$

b) $x^2 - 6kx + 9k^2 = (x - 3k)^2$

c) $1 - 81k^2 = (1 + 9k)(1 - 9k)$

d) $4x^2 - 25k^2 = (2x + 5k)(2x - 5k)$

e) $2x(9x^2 - \frac{1}{9}) = 2x(3x + \frac{1}{3})(3x - \frac{1}{3})$

f) $\frac{1}{2}(x^2 - 36y^2) = \frac{1}{2}(x + 6y)(x - 6y)$

g) $(\frac{x}{k} + 1)(\sqrt{k} - 1)$

h) $(1 + 9x^2)(1 - 9x^2) = (1 + 9x^2)(1 + 3x)(1 - 3x)$

i) $x(x^2 + 2x + 1) = x(x + 1)^2$

j) $x^2(x^2 - 1) = x^2(x + 1)(x - 1) (= (x^2 + x)(x^2 - x))$

k) $x^2(1 - x^2) = x^2(1 + x)(1 - x) = (x^2 + x)(x^2 - x)$

l) $x^2 + x^4$

m) $3x^3(x^4 - 4x^2 + 4) = 3x^3(x^2 - 2)^2$

n) $-(x^2 + 2x - 1) = -$

o) $-(x^2 + 2x + 1) = -(x + 1)^2$

p) $x(x^2 - 5x + 25) = -$

q) $k(4k^2 + 4x + x^2) = -$

r) $-4k(k^2 + 8x + 4x^2) = -$

s) $0,25(4k^2 - 4kx + x^2) = 0,25(2k - x)^2$

t) $-0,5kx^2(-2x + 1 + x^2) = -0,5kx^2(x^2 - 2x + 1) = -0,5kx^2(x - 1)^2$

u) $ax(x - a) = -$

v) $(ax)^2 - a^2x^2 = a^2x^2 - a^2x^2 = 0 (= (ax + ax)(ax - \overset{=0}{ax}))$

w) $x^4 + 1 = -$

x) $0,5(x^4 + 16k^2 - 8kx^2) = 0,5(x^4 - 8kx^2 + 16k^2) = 0,5(x^2 + 4k)^2$