Rozklad mnohočlenu na součin

$$\underbrace{\overset{2\cdot 5}{10}a + \overset{3\cdot 5}{15}b}_{\text{mnohočlen}} = 5(2a+3b)$$

$\xrightarrow{\text{rozkladu}}$ JEDNOČLEN

$a \cdot b$

$a \cdot (b+1)$

"hledám" co mají členy v mnočlenu SPOLEČNÉ

$\longrightarrow$ VYTKNU PŘED ZÁVORKU

a v závorce → "zbytek" (největší dělitel)

VYTÝKÁNÍ PŘED ZÁVORKU

$18m - 12n = 6(3m - 2n)$ $\quad 2(9m - 6n)$

$2x + 2\overset{x \cdot x}{x^2} = 2x(1 + x)$

$12x^2 + 6x = 6x(2x + 1)$

$cd^2 - c^2d = cd(d - c)$

$m^4n^2 + m^2n^4 = m^2n^2(m^2 + n^2)$

$10a^3 - 8a^2 = 2a^2(5a - 4)$

$$\frac{a}{a} = 1$$

$3x + 3y = 3(x + y)$

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

$7ax - 7ay = 7a(x - y)$

$3abm + 6amn = 3am(b + 2n)$

$a^5 + a^2 = a^2(a^3 + 1)$

$$\frac{a^2}{a^2} = 1$$

$5x + 35y = 5(x+7y)$

$5r - 10s = 5(r-2s)$

$4u + 4 = 4(u+1)$

$9p - 18q = 9(p-2q)$

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

$7ax + 7ay = 7a(x+y)$

$8bxz + 4byz = 4bz(2x+y)$

$a - ab = a(1-b)$

$2m - 2n = 2(m-n)$

$9a - 9b = 9(a - b)$

$3r - 6rs = 3r(1 - 2s)$

$3u + 12v = 3(u + 4v)$

$2am + 5bm = m(2a + 5b)$

$2xy - 7yz = y(2x - 7z)$

$3rx - 3xy = 3x(r - y)$

$7a - 21b = 7(a - 3b)$

$2a^2 + 4a = 2a(a + 2)$

$13z^2 - 3z^4 = z^2(13 - 3z)$

$8x + 8y = 8(x+y)$

$5a + ab = a(5+b)$

$3xy - 3xz = 3x(y-z)$

$12a - 18b = 6(2a-3b)$

$4m + 4 = 4(m+1)$

$9abc - 6bcd = 3bc(3a-2d)$

ROZLOŽ NA SOUČIN - vytýkánín

$6x + 9y = 3(2x+3y)$

$3x + 6x^2 = 3x(1+2x)$

$16a - 12b = 4(4a-3b)$

$4ab + 2bc = 2b(2a+c)$

$3xy + 3y = 3y(x+1)$

$x^3 - x^4 = x^3(1-x)$

$2a + 2b + 4c = 2(a+b+2c)$

$7ab + 21a^2b - 14ab^2 = 7ab(1+3a-2b)$

$14an^2 + 15a^2n^2 = 1an^2(14+15a)$

$5ax + 10bx - 15cx = 5x(a+2b-3c)$

$3mn^3 - 9n^2 = 3n^2(mn-3)$

$x^3y^2 + 8x^3y^3 = x^3y^2(1+8y)$

$15x + 60y + 30z = 15(x+4y+2z)$

$20ax - 42bxy = 2x(10a-21by)$

$a^2b^2c^3 - ab^2c^2 = ab^2c^2(ac-1)$

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

$$5ax+5bx-5cx=5x(a+b-c)$$

$$3mn^2-6mn+3m=3m(n^2-2n+1)$$

$$35u^3+56u=7u(5u^2+8)$$

$$105x^3+63x^5=7x^3(15+9x^2)=$$

$$=\underline{\underline{\overset{7\cdot 3}{21}x^3(5+3x^2)}}$$

$$7ab + 21a^2b - 14ab^2 = 7ab(1 + 3a - 2b)$$

$$4ab + 2bc - 6bd = 2b(2a + c - 3d)$$

$$15x - 60y + 30z = 15(x - 4y + 2z)$$

$$24rs + 18gr + 36grs = 6r(4s + 3g + 6gs)$$

$$am + an + bm + bn =$$

$$a(m+n) + b(m+n) = (m+n)(a+b)$$

$$am + bm + an + bn$$

$$m(a+b) + n(a+b) = (a+b)(m+n)$$

$ax + bx + ay + by = x(a+b) + y(a+b) = (a+b)(x+y)$

$a(x+y) + b(x+y)$

$2c(4a + 7b) + (7b + 4a) = (4a+7b)(2c+1)$

$2+3 = 3+2$

$3x(5 + 2y) + 4(5 + 2y) = (5+2y)(3x+4)$

$(r - 6) + 3(r - 6) = (r-6)(1+3) = (r-6)\cdot 4$

$3m - 3 + mn - m = 3(m-1) + m(n-1)$ nelze