ROZKLAD MNOHOČLENŮ NA SOUČIN (M-08-01)

- dle vzoru: $a(b + c) = ab + ac$
- dle vzoru: ax + bx + ax + by = x(a+b) + y(a+b) = (a+b)(x+y)
- dle vzoru: $(a+b)^2 = (a+b)(a+b) = a^2 + 2ab + b^2$
- dle vzoru: $(a-b)^2 = (a-b)(a-b) = a^2 - 2ab + b^2$
- dle vzoru: $(a+b)(a-b) = a^2 - b^2$

a) $9xy - 12x^2y^2 + 24x^3y = \underline{3xy.(3 - 4xy + 8x^2)}$

b) $16s^2 - 24sr + 9r^2 = \underline{(4s - 3r)^2}$

c) $18mn + 9m^2n^4 = \underline{9mn.(2 + mn^3)}$

d) $25o^2 - 10op + p^2 = \underline{(5o - p)^2}$

e) $9a^2 - 36 = \underline{(3a - 6) . (3a + 6)}$

f) $25a^2 + 40ab + 16b^2 = \underline{(5a + 4b)^2}$

g) $8x^2y + 20xy^3 + 12xy^2 = \underline{4xy.(2x + 5y^2 + 3y)}$

h) $121 - 132d + 36d^2 = \underline{(11 - 6d)^2}$

i) $-25a^3b^2c^4 - 5a^2bc^2 - 10ab^2c^3 = \underline{-5abc^2.(5a^2bc^2 + a + 2bc)}$

j) $1 + x + x^2 + x^3 = 1 + x + x^2.(1 + x) = \underline{(1 + x) . (1 + x^2)}$

k) $12z^2 - 27 = \underline{3.(4z^2 - 9)}$

l) $18x^2 + 48xy + 32y^2 = 2.(9x^2 + 24xy + 16y^2) = \underline{2.(3x + 4y)^2}$