

Binomische Formeln

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

Übungen zur 1. Binomischen Formel

a) $(d + e)^2 = d^2 + 2de + e^2$

b) $(k + l)^2 = k^2 + 2kl + l^2$

c) $(3s + 6t)^2 = 9s^2 + 36st + t^2$

d) $v^2 + 2vw + w^2 = (v + w)^2$

e) $25p^2 + 30pq + 9q^2 = (5p + 3q)^2$

Übungen zur 2. Binomischen Formel

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

b) $(x - y)^2 = x^2 - 2xy + y^2$

c) $(7g - 3h)^2 = 49g^2 - 42gh + 9h^2$

d) $y^2 - 2yz + z^2 = (y - z)^2$

e) $64m^2 - 64mn + 16n^2 = (8m - 4n)^2$

Übungen zur 3. Binomischen Formel

a) $(q + p)(q - p) = q^2 - p^2$

b) $(f - g)(f + g) = f^2 - g^2$

c) $(9a + 3b)(9a - 3b) = 81a^2 - 9b^2$

d) $w^2 - x^2 = (w + x)(w - x)$

e) $81k^2 - 36l^2 = (9k + 6l)(9k - 6l)$