

Lösungen zu den Übungen zu den binomischen Formeln 1

$(x + y)^2$	$x^2 + 2xy + y^2$
$(x - y)^2$	$x^2 - 2xy + y^2$
$(x + 2)^2$	$x^2 + 4x + 4$
$(4 - y)^2$	$16 - 8y + y^2$
$(2x + 3)^2$	$4x^2 + 12x + 9$
$(4 + 5y)^2$	$16 + 40y + 25y^2$
$(3a - b)^2$	$9a^2 - 6ab + b^2$
$(4 - 8x)^2$	$16 - 64x + 64x^2$
$(2x + 6y)^2$	$4x^2 + 24xy + 36y^2$
$(5a - 9b)^2$	$25a^2 - 90ab + 81b^2$
$(-3x - y)^2$	$= (3x + y)^2$ $= 9x^2 + 6xy + y^2$
$(a - \frac{4}{5})^2$	$a^2 - \frac{8}{5}a + \frac{16}{25}$
$(\frac{2}{3}a + \frac{1}{4}b)^2$	$\frac{4}{9}a^2 + 2 \cdot \frac{2}{3} \cdot \frac{1}{4} ab + \frac{1}{16}b^2 = \frac{4}{9}a^2 + \frac{1}{3}ab + \frac{1}{16}b^2$
$(2x^2 - y^2)^2$	$4x^4 - 4x^2y^2 + y^4$
$(x + 4) \cdot (x - 4)$	$x^2 - 16$
$(2x + 3y) \cdot (2x - 3y)$	$4x^2 - 9y^2$