

Binomische Formeln und Co.

Lösungen:

1.

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

2.

$$(a + x)^2 = a^2 + 2ax + x^2$$

3.

$$(x - A)(x + A) = x^2 - A^2$$

4.

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

5.

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

6.

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

7.

$$(a + b)(c + d) = ac + ad + bc + bd$$

8.

$$(a - b)(c - d) = ac - ad - bc + bd$$

9.

$$(a - b)(c + d) = ac + ad - bc - bd$$

10.

$$-4 \cdot (y - 3)(-5 - x) = 20x + 4xy - 60 - 12x$$

11.

$$(6 + \eta) \cdot (-3) \cdot (\eta - 1) \cdot 15 = 270 - 225\eta - 45\eta^2$$

12.

$$(5(7 - \gamma)) \left((\gamma - 12) \frac{1}{6} \right) \cdot \left(-\frac{2}{49} \right) = \frac{5}{147}\gamma^2 - \frac{95}{147}\gamma + \frac{20}{7}$$

13.

$$\begin{aligned} & \left(\left(\left(7 - \frac{13\mu}{6} \right) \cdot \left(-\frac{16}{138} \right) \right) \cdot \left(-\frac{106}{65} \right) \cdot \left(10 \left(-\frac{a}{2} - \mu \frac{17}{53} \right) \right) \right) \\ = & -\frac{5936}{897}a - \frac{28832}{4485}\mu + \frac{424}{207}a\mu - \frac{14416}{7245}\mu^2 \end{aligned}$$