

Wiederholung: Ausmultiplizieren und binomische Formeln

- a) $\frac{1}{3}(-5x + 3y - 7\frac{1}{2})(-6)$
- b) $-2xy(+3\frac{3}{4}x^2y)(-x + \frac{2}{3}xy - \frac{1}{3}y)$
- c) $(5 - 3a)(125 + 75a + 45a^2 + 27a^3)$
- d) $(2 - 5x)(3 + 7x)(10x + 4)$
- e) $(7p - 5q + 4r)(8r - 14p + 10q) - 4(8r^2 + 35pq)$
- f) $(f^2 - \frac{1}{3}g^2)(-3e^2) - e(-1\frac{1}{2}ef + eg)(2f - g)$
- g) $[-3 + (-4\frac{1}{2}a + 5)][2a - (3 - \frac{1}{2}a)]$
- h) $-2x(y - 1) - [3x - (1 + 5x)][2y - (2 + y)]$
- i) $(1\frac{1}{4}a^3b + \frac{3}{4}ab^2)^2$
- j) $[-\frac{3}{5}xy^2 - (-2\frac{1}{2}y)]^2$
- k) $(-8y + 3x^2y)(3x^2y + 8y)$
- l) $(\frac{3}{2}x + \frac{1}{3}y)^2 - (\frac{3}{2}x - \frac{1}{3}y)^2$
- m) $(-2uv^2 - 3w)^2 + (2uv^2 - 3w)^2 - 2uv(4uv^3 - 1)$
- n) $(7p^2q - 5r^3)^2 - (7p^2q + 5r^3)(7p^2q - 5r^3) - 10r^3(-7p^2q + 5r^3)$
- o) $[4\frac{1}{2}xy(-\frac{1}{3}xy^2z + \frac{2}{3}xyz^2)]^2$
- p) $\frac{3}{2}ab^2(-a^2b - \frac{1}{3}ab^2)^2$
- q) $[(\frac{1}{2}a + \frac{2}{3}b^2)(\frac{2}{3}b^2 - \frac{1}{2}a)]^2$
- r) $[(4ef^2 - 3g)^2 + (3g + 4ef^2)^2]^2$
- s) $(5x^2y - 1)(5x^2y + 1)^2$
- t) $(\frac{1}{2}rs + 2t)^2(\frac{3}{2}rs - 6t)^2$
- u) $[(3m - 5n)^2 - (3m + 5n)^2 + 30mn + 1]^2$
- v) $(3x - 2y)^2 - [(2x - 3y)^2 - 2(2x - 3y)(x + y) + (x + y)^2]$
- w) $[(x - y)(x + y)(x^2 + y^2)(x^4 + y^4)]^2$

Ergebnisse:

a) $10x - 6y + 15$

c) $625 - 81a^4$

e) $-98p^2 - 50q^2$

g) $-11\frac{1}{4}a^2 + 18\frac{1}{2}a - 6$

i) $1\frac{9}{16}a^6b^2 + 1\frac{7}{8}a^4b^3 + \frac{9}{16}a^2b^4$

k) $9x^4y^2 - 64y^2$

m) $18w^2 + 2uv$

o) $2\frac{1}{4}x^4y^6z^2 - 9x^4y^5z^3 + 9x^4y^4z^4$

q) $\frac{16}{81}b^8 - \frac{2}{9}a^2b^4 + \frac{1}{16}a^4$

s) $125x^6y^3 + 25x^4y^2 - 5x^2y - 1$

u) $900m^2n^2 - 60mn + 1$

w) $x^{16} - 2x^8y^8 + y^{16}$

b) $7\frac{1}{2}x^4y^2 - 5x^4y^3 + 2\frac{1}{2}x^3y^3$

d) $-350x^3 - 150x^2 + 56x + 24$

f) $2e^2g^2 - 3\frac{1}{2}e^2fg$

h) $-2x + y - 2$

j) $\frac{9}{25}x^2y^4 - 3xy^3 + 6\frac{1}{4}y^2$

l) $2xy$

n) 0

p) $1\frac{1}{2}a^5b^4 + a^4b^5 + \frac{1}{6}a^3b^6$

r) $1024e^4f^8 + 1152e^2f^4g^2 + 324g^4$

t) $\frac{9}{16}r^4s^4 - 18r^2s^2t^2 + 144t^4$

v) $8x^2 - 4xy - 12y^2$