

Multiplizieren von Summen (Lösungen)

07sn010

1. (a) $2y + 2x - xy - x^2$
(b) $-a - 5b - a^2 + b^2 + 6$

07cm006

2. $-2x^2y$

07cm021

3. (a) $-x^3 + 4\frac{1}{2}x^2 - x - \frac{1}{2}$
(b) $-a^3 + 4\frac{1}{2}a^2 + a - 1\frac{1}{2}$
(c) $24x^3 - 6x^2 - 24x + 6$
(d) $24a^3 - 14a^2 - 11a + 6$
(e) $\frac{1}{8}x^3 + \frac{1}{125}u^3$

07sn021

4. 0

07cm015

5. (a) $-x + 2x^2 + x^3 - 2x^4$ (b) $5ax^2 - 5a^2x$

07sn012

6. (a) $3a + 3b - a^2 - ab$
(b) $12 - 5x - 10y + 3xy - 2x^2 + 2y^2$

07cm042

7. Vereinfache soweit wie möglich:

- (a) $7a - \{2z - [5x^2 + (7a - 4x^2) - x^2 + 2x]\}$
(b) $-5x(2a + 3b) - (8b - 5a) \cdot 2x - 4x(7a - 5b)$
(a) $14a + 2x - 2z$ (b) $-11bx - 28ax$

07cm049

8. (a) $-47\frac{1}{2}$ (b) $-6,49a - 2,37b - 13,9c + 2$ (c) $-57a^2 + 30ab + 9a - 54b^2$

07cm066

9. $-a^2b - a^2 + \frac{2}{3}ab^2 + 12\frac{1}{2}ab - 14ac - 5b^2$

07cm051

10. Vereinfache soweit wie möglich:

- (a) $7a - \{2z - [5x^2 + (7a - 4x^2) - x^2 + 2x]\}$
(b) $-5x(2a + 3b) - (8b - 5a) \cdot 2x - 4x(7a - 5b)$
(a) $14a + 2x - 2z$ (b) $-28ax - 11bx$

07cm059

11. (a) $55a$ (b) $-a^2 - 4ab - 3ac - 11b^2 - 11bc + 2c^2$

07cm061

12. $7axz - 28bxz - 3ay + 12by + 4byz - 84bx - ayz + 21ax$

07rr018

13. (a) $x^2 - x - x^2 - x = -2x$
(b) $ax^2 - \frac{x^3}{2} - ax^2 + \frac{x^3}{3} = \frac{-3x^3 + 2x^3}{6} = \frac{-x^3}{6} = -\frac{x^3}{6}$

07rr023

14. (a) $x^2 - x - x^2 - x + x^2 + x = x^2 - x$
(b) $-2u^2 + 4uy - 2uy - 2y^2 = -2u^2 + \underset{1}{2}uy - 2y^2$

$$(c) -\frac{e^2}{2} - \frac{5ef}{8} - \frac{3ef}{8} + 2f + \frac{e^2}{4} - 2f = -\frac{e^2}{4} - ef$$

07rr027

15. (a) $6a^2 - 13ab + 6b^2$ (b) $1 - a - b - c + ab + ac + bc - abc$
(c) $ax^2 - a^2xy - xy + ay^2$ (d) $1 - x - x^2 + x^3$
(e) $u^4 - 2u^2w^2 + w^4$ (f) $6 - 11x + 6x^2 - x^3$
(g) $x^2 - \frac{13}{6}xy + y^2$ (h) $1 - \frac{x^4}{16}$

07rr031

16. $\frac{a^2}{4} - 1 + \frac{1}{8} - \frac{a^2}{2} = -\frac{a^2}{4} - \frac{7}{8}$

07rr035

17. $\frac{1}{4} - b^2 + \frac{b^2}{8} - \frac{1}{2} = -\frac{1}{4} - \frac{7}{8}b^2$