

Klammern - 23 (Lösung)

Berechne:

- a) $(x + 4)(x + 5) - 6(2x + 3) =$
 $x^2 + 5x + 4x + 20 - [12x + 18] =$
 $x^2 + 5x + 4x + 20 - 12x - 18 =$
 $x^2 - 3x + 2$
- b) $(3y - 4x)(7x + 2y) - 5(6x - 4y) =$
 $21xy + 6y^2 - 28x^2 - 8xy - [30x - 20y] =$
 $21xy + 6y^2 - 28x^2 - 8xy - 30x + 20y =$
 $13xy + 6y^2 - 28x^2 - 30x + 20y =$
- c) $(a + 4)(5 - a) - (a - 1)(a + 8) =$
 $5a - a^2 + 20 - 4a - [a^2 + 8a - a - 8] =$
 $5a - a^2 + 20 - 4a - a^2 - 8a + a + 8 =$
 $28 - 6a - 2a^2$
- d) $-(7m + 3n)(m - 5n) - (8m - 10n)(n - m) =$
 $- [7m^2 - 35mn + 3mn - 15n^2] -$
 $[8mn - 8m^2 - 10n^2 + 10mn] =$
 $-7m^2 + 35mn - 3mn + 15n^2 -$
 $8mn + 8m^2 + 10n^2 - 10mn =$
 $m^2 + 25n^2 + 14mn$
- e) $- [2x(y + 5z) - (8x + y)(5z - x)] =$
 $- [2xy + 10xz - (40xz - 8x^2 + 5yz - xy)] =$
 $- [2xy + 10xz - 40xz + 8x^2 - 5yz + xy] =$
 $- 2xy - 10xz + 40xz - 8x^2 + 5yz - xy =$
 $30xz - 3xy - 8x^2 + 5yz$
- f) $(x + 3)(x + 4) - (x + 6)(x + 1) =$
 $x^2 + 4x + 3x + 12 - [x^2 + x + 6x + 6] =$
 $x^2 + 4x + 3x + 12 - x^2 - x - 6x - 6 =$
6