

Klammern - 11 (Lösung)

Achte auf die Minuskammern, setze []:

- a) $(3y + 5x)^2 - (4x - 2y)^2 =$
 $9y^2 + 30xy + 25x^2 - [16x^2 - 16xy + 4y^2] =$
 $9y^2 + 30xy + 25x^2 - 16x^2 + 16xy - 4y^2 =$
 $5y^2 + 46xy + 9x^2$
- b) $(3s + 7t)^2 - (2s - 5t)(2s + 5t) =$
 $9s^2 + 42st + 49t^2 - [4s^2 - 25t^2] =$
 $9s^2 + 42st + 49t^2 - 4s^2 + 25t^2 =$
 $5s^2 + 42st + 74t^2$
- c) $(5x + 3y)^2 - (y - 2x)^2 - (6x + 5y)(6x - 5y) =$
 $25x^2 + 30xy + 9y^2 - [y^2 - 4xy + 4x^2] - [36x^2 - 25y^2] =$
 $25x^2 + 30xy + 9y^2 - y^2 + 4xy - 4x^2 - 36x^2 + 25y^2 =$
 $15x^2 + 34xy + 33y^2$
- d) $(5a - 4b)^2 - (3b + 4a)^2 - (3a + 5b)^2 =$
 $25a^2 - 40ab + 16b^2 - [9b^2 + 24ab + 14a^2] -$
 $[9a^2 + 30ab + 25b^2] =$
 $25a^2 - 40ab + 16b^2 - 9b^2 - 24ab - 14a^2 -$
 $9a^2 - 30ab - 25b^2 =$
 $2a^2 - 94ab - 18b^2$
- e) $-(3a - 10b)^2 - (a + 8)(a - 8) - (b - 4a)^2 =$
 $-[9a^2 - 60ab + 100b^2] - [a^2 - 64] -$
 $[b^2 - 8ab + 16a^2] =$
 $-9a^2 + 60ab - 100b^2 - a^2 + 64 -$
 $b^2 + 8ab - 16a^2 =$
 $-26a^2 + 68ab - 101b^2 + 64$