

Lösungen Zusatzaufgaben, Gleichungensyst. lösen

$$1. \quad 3x + 12 - [2(x-3) + 18] = 11$$

$$3x + 12 - [2x - 6 + 18] = 11$$

$$3x + 12 - 2x + 6 - 18 = 11$$

$$\underline{\underline{x = 11}}$$

$$2. \quad 5x + 3 + [2(3x+4) - 3(x-1)] = 22$$

$$5x + 3 + [6x + 8 - 3x + 3] = 22$$

$$5x + 3 + 6x + 8 - 3x + 3 = 22$$

$$8x + 14 = 22 \quad | -14$$

$$8x = 8 \quad | :8$$

$$\underline{\underline{x = 1}}$$

$$3. \quad 25t + 18 - [3(t-4) - 4(2t+1)] = 94$$

$$25t + 18 - [3t - 12 - 8t - 4] = 94$$

$$25t + 18 - 3t + 12 + 8t + 4 = 94$$

$$30t + 34 = 94 \quad | -34$$

$$30t = 60 \quad | :30$$

$$\underline{\underline{t = 2}}$$

$$\underline{4.} \quad (3x+5)(3x+5) - [(9x+1)(x+1)] = 84$$

$$9x^2 + 15x + 15x + 25 - [9x^2 + 9x + x + 1] = 84$$

$$\cancel{9x^2} + 15x + 15x + 25 - \cancel{9x^2} - 9x - x - 1 = 84$$

$$20x + 24 = 84 \quad | -24$$

$$20x = 60 \quad | :20$$

$$\underline{\underline{x = 3}}$$

$$\underline{5.} \quad (2t+3)(2t+3) - [(2t+1)(2t+1)] = 48$$

$$4t^2 + 6t + 6t + 9 - [4t^2 + 2t + 2t + 1] = 48$$

$$\cancel{4t^2} + 6t + 6t + 9 - \cancel{4t^2} - 2t - 2t - 1 = 48$$

$$8t + 8 = 48 \quad | -8$$

$$8t = 40 \quad | :8$$

$$\underline{\underline{t = 5}}$$

$$\underline{6.} \quad (3y+4)(3y+4) - [9(y+1)(y+1)] = 79$$

$$9y^2 + 12y + 12y + 16 - [9(y^2 + y + y + 1)] = 79$$

$$9y^2 + 12y + 12y + 16 - [9y^2 + 9y + 9y + 9] = 79$$

$$\cancel{9y^2} + 12y + 12y + 16 - \cancel{9y^2} - 9y - 9y - 9 = 79$$

$$6y + 7 = 79 \quad | -7$$

$$6y = 72 \quad | :6$$

$$\underline{\underline{y = 12}}$$