

Wir finden Quadrat-Binome zu Termen

Term

Quadrat-Binom

$$x^2 + 16x + 64 = (x + 8)^2$$

Probe: $(x + 8)^2 = (x + 8) \cdot (x + 8)$

$$= x \cdot x + 8x + 8x + 8 \cdot 8$$
$$= \underline{x^2 + 16x + 64}$$

Term

Quadrat-Binom

$$x^2 - 18x + 81 = (x - 9)^2$$

Probe: $(x - 9)^2 = (x - 9) \cdot (x - 9)$

$$= x \cdot x - 9x - 9x + 8 \cdot 8$$
$$= \underline{x^2 - 18x + 81}$$

Term

Quadrat-Binom

$$x^2 - 64 = (x - 8) \cdot (x + 8)$$

Probe: $(x + 8)^2 = (x - 8) \cdot (x + 8)$

$$= x \cdot x - 8x + 8x - 8 \cdot 8$$
$$= \underline{\underline{x^2 - 64}}$$

Übungen:

Forme die Terme um in Quadrat-Bionome.

1. $y^2 + 10y + 25 =$
2. $x^2 + 6x + 9 =$
3. $25 - 10a + a^2 =$
4. $x^2 + 4x + 4 =$
5. $a^2 + 24a + 144 =$
6. $x^2 + 14x + 49 =$
7. $225 - 30b + b^2 =$
8. $x^2 - 361 =$
9. $a^2 - 49 =$
10. $b^2 - 18x + 81 =$
11. $9x^2 + 60x + 100 =$
12. $49q^2 + 70q + 25 =$
13. $9 - x^2 =$
14. $4 - 12b + 9b^2 =$
15. $m^2 - 8mn + 16n^2 =$
16. $400 - o^2 =$
17. $625 + 1000 + 400 =$
18. $x^2 - 22x + 121 =$
19. $x^4 - 22x^2 + 121 =$
20. $25b^2 + 160b + 256 =$

Erfinde weitere Aufgaben.