**Normalform -> Scheitelpunktform**

Klappe zum Rechnen im Heft die Lösungen an der gestrichelten Linie nach hinten. Nach dem Lösen der Aufgaben kannst Du die Lösungen zurück klappen und vergleichen. Viel Erfolg!

Lösungen:

| | | | | | |
|---|---|---|---|---|---|
| a) | $y = x^2$ | $+ 8x$ | $+ 20$ | | $y = (x + 4)^2 + 4$ |
| b) | $y = x^2$ | $- 14x$ | $+ 55$ | | $y = (x - 7)^2 + 6$ |
| c) | $y = x^2$ | $- 8x$ | $+ 16$ | | $y = (x - 4)^2 \quad 0$ |
| d) | $y = x^2$ | $+ 8x$ | $+ 18$ | | $y = (x + 4)^2 + 2$ |
| e) | $y = x^2$ | $+ 8x$ | $+ 23$ | | $y = (x + 4)^2 + 7$ |
| f) | $y = x^2$ | $- 8x$ | $+ 12$ | | $y = (x - 4)^2 - 4$ |
| g) | $y = x^2$ | $- 16x$ | $+ 72$ | | $y = (x - 8)^2 + 8$ |
| h) | $y = x^2$ | $- 6x$ | $+ 13$ | | $y = (x - 3)^2 + 4$ |
| i) | $y = x^2$ | $- 4x$ | $+ 7$ | | $y = (x - 2)^2 + 3$ |
| j) | $y = x^2$ | $- 16x$ | $+ 63$ | | $y = (x - 8)^2 - 1$ |
| k) | $y = x^2$ | $- 8x$ | $+ 15$ | | $y = (x - 4)^2 - 1$ |
| l) | $y = x^2$ | $- 14x$ | $+ 45$ | | $y = (x - 7)^2 - 4$ |
| m) | $y = x^2$ | $0x$ | $+ 6$ | | $y = (x \quad 0)^2 + 6$ |
| n) | $y = x^2$ | $- 8x$ | $+ 19$ | | $y = (x - 4)^2 + 3$ |
| o) | $y = x^2$ | $- 8x$ | $+ 22$ | | $y = (x - 4)^2 + 6$ |
| p) | $y = x^2$ | $0x$ | $- 2$ | | $y = (x \quad 0)^2 - 2$ |
| q) | $y = x^2$ | $- 4x$ | $0$ | | $y = (x - 2)^2 - 4$ |
| r) | $y = x^2$ | $- 8x$ | $+ 19$ | | $y = (x - 4)^2 + 3$ |
| s) | $y = x^2$ | $+ 14x$ | $+ 44$ | | $y = (x + 7)^2 - 5$ |
| t) | $y = x^2$ | $+ 6x$ | $+ 2$ | | $y = (x + 3)^2 - 7$ |
| u) | $y = x^2$ | $+ 10x$ | $+ 28$ | | $y = (x + 5)^2 + 3$ |
| v) | $y = x^2$ | $+ 6x$ | $+ 3$ | | $y = (x + 3)^2 - 6$ |
| w) | $y = x^2$ | $+ 6x$ | $+ 3$ | | $y = (x + 3)^2 - 6$ |
| x) | $y = x^2$ | $+ 4x$ | $+ 9$ | | $y = (x + 2)^2 + 5$ |
| y) | $y = x^2$ | $- 2x$ | $+ 4$ | | $y = (x - 1)^2 + 3$ |
| z) | $y = x^2$ | $+ 2x$ | $+ 1$ | | $y = (x + 1)^2 \quad 0$ |