

Lösungen

1. a) 3, 7, 11, 15, 19 b) -2, -2, 0, 4, 10 c) $\frac{1}{2}, \frac{1}{3}, \frac{1}{4}, \frac{1}{5}, \frac{1}{6}$ d) 1, 0, -1, 0, 7
2. a) 38 b) 81 c) 89 d) 22
3. a) 18 b) 11
4. a) $a_1 = 1, a_{n+1} = a_n + 3; a_n = 3(n - 1) + 1$ b) $a_1 = 6, a_{n+1} = a_n + 7; a_n = 7n - 1$
 c) $a_1 = 6, a_{n+1} = 2a_n; a_n = 3 \cdot 2^n$ d) $a_1 = 4, a_{n+1} = 2a_n; a_n = 2^n$
5. a) $a_1 = 0.1, a_{n+1} = 0.1a_n$ b) $a_1 = 5, a_{n+1} = 2a_n + 1$
 c) $a_1 = 2, a_{n+1} = a_n + 3$ d) $a_1 = 6, a_{n+1} = 3a_n$
6. 500500 8. $n = 7$
7. $n = 12$ 9. $n = 18$
10. 14 Glieder
11. a) 4 b) $\frac{1}{4}$
12. a) 4, -7, 189 b) $-\frac{3}{2}, 136, 62.5$
13. a) 39, $a_n = 4n - 1$ b) 6.6, $a_n = 6.6 + 0.6(n - 1)$
14. $n = 124$ 16. 2.25, 0.25
15. $27 < n \leq 72$ 17. $n = 20, a_2 = 4.79$
18. $a_1 = 3, d = 4$ oder $a_1 = -14, d = 12.5$
19. 6, 3, 0, -3, -6, -9
20. $s_n = 352$
21. $s_{69} = 17457$
22. $s_{25} = 725$
23. a) 125m b) 975 m c) 19s
24. a) $\frac{3}{2}, 1093.5$ b) $-\frac{1}{2}, -50$
25. a) 1000 b) $\frac{1}{4}$
26. 6905 28. 728
27. 238 29. 14.5
30. $\frac{1}{2}, \frac{3}{2}, \frac{9}{2}, \frac{15}{2}$
31. a) 2 b) $\frac{2}{5}$ c) $\frac{2}{15}$ d) $2\sqrt{2}$
32. a) 25 b) 245
33. a) $\frac{1}{6}$ b) $\frac{9}{10}$
34. $\frac{2}{3}$
35. 46
36. a) 1.5 / 1.125 / 0.84375 / / 0.1126 b) 2.625 / 4.576 c) 6 m
37. -