

## Oefening Rijen

### ANTWOORDEN

1

a 
$$\sum_{k=1}^{k=15} (7k - 11) = 0,5 \times 15 \times (94 + -4) = 675$$

b 
$$\sum_{k=1}^{k=15} \left(1\frac{1}{3} \cdot k + 1\right) = 0,5 \times 15 \times (21 + 2\frac{1}{3}) = 175$$

c 
$$\sum_{k=1}^{k=15} \frac{3}{8} \cdot 2^k = \frac{3}{4} \cdot \frac{1 - 2^{15}}{1 - 2} = 24575,25$$

d 
$$\sum_{k=1}^{k=15} 40960 \cdot \left(\frac{1}{2}\right)^k = 20480 \cdot \frac{1 - \left(\frac{1}{2}\right)^{15}}{1 - \frac{1}{2}} = 40958,75$$

2

a  $s_1 = -1 \quad s_2 = -1 \quad s_3 = 2 \quad s_4 = 10 \quad s_5 = 25$

b  $-1, 0, 3, 8, 15.$

c  $1, 3, 5, 7.$

d  $2 \cdot n - 3.$

e  $u(n) = u(n-1) + 2n - 3$

3

a  $1 \times 2 = 2, 2 \times 3 = 6, 3 \times 4 = 12, 4 \times 5 = 20, 5 \times 6 = 30, 6 \times 7 = 42$

b Geen van beide.

c  $r(n) = n \times (n+1).$

d  $4, 6, 8, 10, 12 \dots$

e duidelijk.

f  $r(n) = r(n-1) + 2n.$

4

a  $100 \times 0,97 \times 0,97 \times 0,97 = 91,27$

b steeds keer 0,97.

c  $k(n) = k(n-1) \times 0,97.$

d  $k(n) = 100 \times (0,97)^{(n-1)}$  met  $k(1) = 100.$

e eerst 100, dan  $100 \times 0,97 \times 1,03 = 99,91$  dus neemt af