

**Oefening rijen**  
**ANTWOORDEN**

**Opgave 1.**  $u(n) = u(n-1) \cdot (-1,5)$  met  $u(1) = 4$   
 $U(n) = -2 \frac{2}{3} \cdot (-1,5)^n = 4 \cdot (-1,5)^{n-1}$

**Opgave 2.**  $u(n) = u(n-1) - 4$  en  $u(1) = 43$   
 $U(n) = -4 \cdot n + 47$

**Opgave 3**  $u(1) = 12$  en  $u(14) = 0,00146484$  en  $r = 0,5$   
 $Som(14) = 12 \cdot (1 - (0,5)^{14}) / (1 - 0,5) =$

**Opgave 4**  $u(n) = u(n-1) - 10$  en  $u(1) = 60$   
 $U(n) = -10 \cdot n + 70$

**Opgave 5**  $som = 0,5 \cdot 46 \cdot (1 + 91) = 23 \times 92 = 2116$

**Opgave 6**  $u(n) = 1,25 \times u(n-1)$  en  $u(7) = 34$   
 $U(n) = 7,13 \cdot (1,25)^n$

**Opgave 7** de verschilrij  $v(n) = 2n$   
de recursieformule  $u(n) = u(n-1) + 2n$   
 $u(12) = 159$

**Opgave 8**

Bereken:  $\sum_{k=1}^3 (4k - 1) = 3 + 7 + 11 = 21$

Bereken  $\sum_{n=2}^5 (n^2 - 3n) = -2 + 0 + 4 + 10 = 12$

Bereken  $\sum_{n=1}^{20} (3n - 1) = 0,5 \cdot 20 \cdot (2 + 59) = 610$

Bereken  $\sum_{n=1}^{12} (2 \cdot 3^n) = 6 \cdot (1 - 3^{12}) / (1 - 3) = 1594320$