589

a)

$a_4 = 42$ $a_{17} = 133$

Berechnung von d:

$a_{17} = a_4 + 13d$

$133 = 42 + 13d$ → $d = 7$

Berechnung von a_1:

$a_4 = a_1 + 3d$

$42 = a_1 + 21$ → $a_1 = 21$

$s_{15} = \frac{15}{2} \cdot (2 \cdot 21 + (15 - 1) \cdot 7) = 1\,050$

$s_{80} = \frac{80}{2} \cdot (2 \cdot 21 + (80 - 1) \cdot 7) = 23\,800$

$s_n = \frac{n}{2} \cdot (2 \cdot 21 + (n - 1) \cdot 7) = \frac{n}{2} \cdot (7n + 35) = \frac{7n^2 + 35n}{2}$