

Ευκλείδειον

1. $b_6 \cdot 51b_1 = 0,25 \cdot 4 \cdot b_n = 4b_{n-1}$

$b_1 = 0,25$

$b_2 = 0,25 \cdot 4 = 1$

$b_3 = 1 \cdot 4 = 4$

$b_4 = 4 \cdot 4 = 16$

$b_5 = 16 \cdot 4$

$b_5 = 64$

$b_6 = 64 \cdot 4 = 256$

2.

5

$$\sum_{n=1}^9$$

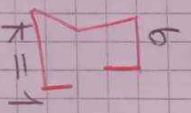
$$\frac{3n-1}{n}$$

$$\frac{3 \times 1 - 1}{1} \quad \frac{3 \times 2 - 1}{2} \quad \frac{3 \times 3 - 1}{3} \quad \frac{3 \times 4 - 1}{4} \quad \frac{3 \times 5 - 1}{5} \quad \frac{3 \times 6 - 1}{6}$$

$$\frac{3 \times 7 - 1}{7} \quad \frac{3 \times 8 - 1}{8} \quad \frac{3 \times 9 - 1}{9}$$

$$\frac{60911}{2520}$$

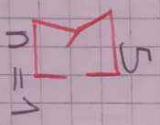
6



$$\frac{1}{2n}$$

$$\frac{49}{40} \quad 1 \frac{9}{40} \quad 1.22$$

7



$$\left(\frac{2}{1}\right)^{n-1}$$

$$\frac{3355}{2401}$$

$$\frac{25}{1} \quad \frac{954}{2401} \quad \frac{25}{1} = 1, 30933$$

8

$$3 \quad a_1 = 1 - \frac{2}{3}, a_{k+1} - a_k = \frac{1}{2}$$

$$a_k - a - 4 = 0$$

$$a_1 = 25$$

$$\frac{2}{3} \cdot \frac{1}{2} - \frac{1}{2} = \frac{2}{3}$$

$$10 = \frac{2}{3}$$

$$-a_k + a = \frac{1}{2}$$

$$a = -\frac{2}{3}$$

$$a = \frac{2}{3}, -a_k + a = \frac{1}{2}$$

4.

$$a_1 = 4, 5n-1$$

$$a_1 = 12, 1-1=0$$

$$a_1 = 12$$

$$a_2 = 4 - 3 \cdot 1 - 2 = 1$$

$$a_2 = 12$$

$$a_2 = 12$$

$$8. \quad 6950.050 - 1800.000 = 5150.050 \text{) resposta 0.}$$

$$9. \quad S_n = 9 \left(\frac{4^n - 1}{4 - 1} \right) - 15.461$$

$$S_1 = 1 \left(\frac{4^1 - 1}{4 - 1} \right) = 1$$

$$S_2 = 1 \left(\frac{4^2 - 1}{4 - 1} \right) = 2,3$$

$$S_3 = 1 \left(\frac{4^3 - 1}{4 - 1} \right) = 21$$

$$S_4 = 1 \left(\frac{4^4 - 1}{4 - 1} \right) = 85$$

$$S_5 = 1 \left(\frac{4^5 - 1}{4 - 1} \right) = 341$$

$$S_6 = 1 \left(\frac{4^6 - 1}{4 - 1} \right) = 1.365$$

$$S_7 = 1 \left(\frac{4^7 - 1}{4 - 1} \right) = 5.461$$