

Cálculo II

Séquências do tipo r^n

$$a_n = 2 + (0,86)^n$$

$$a_1 = 2 + (0,86)^1$$

$$a_1 = 2,86$$

$$\lim_{n \rightarrow \infty} a_n = L$$

$$a_2 = 2 + (0,86)^2$$

$$a_2 = 2 + 0,7396$$

Convergente

$$a_2 = 2,7396$$

$$a_3 = 2 + (0,86)^3$$

$$a_3 = 2 + 0,636056$$

$$a_3 = 2,636056$$

$$a_n = 512 \cdot \left(\frac{1}{2}\right)^n$$

$$a_1 = 512 \cdot \left(\frac{1}{2}\right)^1$$

$$\lim_{n \rightarrow \infty} a_n = L$$

$$a_1 = 256$$

Convergente

$$a_2 = 512 \cdot \left(\frac{1}{2}\right)^2$$

$$a_2 = 512 \cdot \frac{1}{4}$$

$$a_2 = 128$$

$$a_3 = 512 \cdot \left(\frac{1}{2}\right)^3$$

$$a_3 = 512 \cdot \frac{1}{8}$$

$$a_3 = 64$$

$$a_n = \left(\frac{1}{4}\right)2^n$$

$$a_1 = \left(\frac{1}{4}\right)2^1$$

$\lim_{n \rightarrow \infty} a_n = \infty$

$$a_1 = \frac{1}{4} \cdot 2 = \frac{2}{4} = \frac{1}{2},$$

$$a_2 = \frac{1}{4} \cdot 4 = \frac{4}{4} = 1,$$

Divergente,

$$a_3 = \frac{1}{4} \cdot 8 = \frac{8}{4} = 2,$$

$$a_4 = \frac{1}{4} \cdot 16 = \frac{16}{4} = 4,$$

$$a_5 = \frac{1}{4} \cdot 32 = \frac{32}{4} = 8,$$