

Exercícios Adicionais

6ª Aula

Exercício 6.1:

Analise a natureza das seguintes séries:

- (a) $\sum_{n=1}^{\infty} (\cos(\frac{\pi}{n+2}) - \cos(\frac{\pi}{n}))$
- (b) $\sum_{n=1}^{\infty} \frac{1}{2+\cos(n\pi)}$
- (c) $\sum_{n=1}^{\infty} \left(\frac{1}{\sqrt{n+1}} - \frac{1}{\sqrt{n}} \right)$
- (d) $\sum_{n=1}^{\infty} (\sqrt{n+1} - \sqrt{n})^3$
- (e) $\sum_{n=1}^{\infty} \frac{b^n}{1+b^{2n}}, \quad b > 0$

Exercício 6.2:

Determine a soma das seguintes séries:

- (a) $\sum_{n=1}^{\infty} \frac{1}{n(n+2)}$
- (b) $\sum_{n=1}^{\infty} \frac{1}{(1+|a|)^n}, \quad a \in \mathbb{R} \setminus \{0\}$