

GUÍA SUMATORIAS

Calcular las siguientes sumatorias:

$$1) \sum_{k=1}^{10} (k-3)(k-1) =$$

$$2) \sum_{k=1}^n \ln\left(\frac{k+1}{k}\right) =$$

$$3) \sum_{k=1}^n \frac{1}{(k+2)(k+3)} =$$

$$4) \sum_{k=5}^{10} \frac{-4}{k^2 + 3k + 2} =$$

$$5) \sum_{k=1}^{60} (-2k^3 + k + 5) =$$

$$6) \sum_{k=10}^{90} \frac{k^2 + 2k + 1}{(2k+5)!} - \frac{k^2}{(2k+3)!} =$$

$$7) \sum_{k=1}^{20} \frac{2^{-2+k}}{5^{k+1}} =$$

8)

$$\sum_{k=50}^{100} \left(\frac{2}{3k+2} - \frac{2}{3k+5} \right) =$$

$$9) \sum_{k=50}^{150} \left(\frac{k}{k^2 + 2k + 1} - \frac{k+1}{k^2 + 4k + 4} \right)$$

$$10) \sum_{k=4}^{10} \left[\frac{1}{(k+2)(k+3)} + 2^{1-k} + 10 \right]$$