

Calcul - 10 minutes

Exercice

1. Calculer $\sum_{k=1}^n (7^k + 4k - n + 2)$
2. Calculer $\sum_{k=2}^{n+2} \ln \left(1 + \frac{1}{k} \right)$
3. Calculer $\sum_{1 \leq i < j \leq n} (i + j)$
4. Calculer $\sum_{k=1}^n 2^{2n-k} \binom{n}{k}$

Calcul - 10 minutes

Exercice

1. Calculer $\sum_{k=1}^n (3k + n - 1)$
2. Calculer $\sum_{k=2}^{n+2} (k+1)^3 - k^3$
3. Calculer $\sum_{1 \leq i < j \leq n} (i+j)^2$
4. Calculer $\sum_{k=1}^n 2^{k+2} \binom{n}{k} 3^{2n-k+1}$