

# AED 2 - Algoritmo e Estrutura de Dados 2

## Quiz 3

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### 1. Resolva os somatórios abaixo:

$$\sum_{n=1}^4 n^2 = 1^2 + 2^2 + 3^2 + 4^2 = 1 + 4 + 9 + 16 = 30$$

$$\begin{aligned} \sum_1^4 (3 - 2i) &= (3 - (2 \times 1)) + (3 - (2 \times 2)) + (3 - (2 \times 3)) + (3 - (2 \times 4)) = (3 - 2) + \\ &(3 - 4) + (3 - 6) + (3 - 8) = 1 - 1 - 3 - 5 = -8 \end{aligned}$$

$$\sum_1^3 (2i + x) = \sum_1^3 2i + \sum_1^3 x = 2(1 + 2 + 3) + (x + x + x) = 12 + 3x$$

$$\begin{aligned} \sum_0^5 i \cdot (i - 1) \cdot (5 - 1) &= (0 \times (-1) \times 5) + (1 \times 0 \times 4) + (2 \times 1 \times 3) + (3 \times 2 \times 2) + (4 \times \\ &3 \times 1) + (5 \times 4 \times 0) = 0 + 0 + 6 + 12 + 12 + 0 = 30 \end{aligned}$$

$$\sum_{m=1}^4 (8k - 6m) = \sum_{m=1}^4 8k - \sum_{m=1}^4 6m = (8k + 8k + 8k + 8k) - 6(1 + 2 + 3 + 4) = 32k - 60$$