

ESTATÍSTICA I
LISTA DE EXERCÍCIOS - Somatório
Professora: Leísa Pires Lima

1. Sabendo-se que:

$$\begin{array}{ccccc} X_1 = 3, & X_2 = 4, & X_3 = 8, & X_4 = 7, & X_5 = 6 \\ Y_1 = 3, & Y_2 = 8, & Y_3 = 2, & Y_4 = 5, & Y_5 = 6 \end{array}$$

Calcule:

a) $\sum_{i=1}^5 Y_i$

b) $\sum_{i=1}^3 Y_i^2$

c) $\sum_{i=2}^4 X_i Y_i$

d) $\sum_{\substack{i=1 \\ i \neq 3}}^5 X_i$

e) $\sum_{i=1}^5 4X_i$

f) $\sum_{i=3}^5 (X_i + 6)^2$

g) $\sum_{i=2}^4 (2X_i - 3)$

2. Calcule:

a) $\sum_{i=1}^3 i$

b) $[\sum_{i=1}^3 (i + 8)]^2$

c) $\sum_{i=-1}^2 i^2$

3. Calcule X_1 e X_3 , dado que:

$$\sum_{i=1}^6 X_i = 42 \quad \sum_{i=1}^6 X_i^2 = 364$$

$$\sum_{\substack{i=1 \\ i \neq 1,3}}^6 X_i = 34 \quad \sum_{\substack{i=1 \\ i \neq 1,3}}^6 X_i^2 = 324$$

4. Sabendo-se que $\sum_{i=1}^5 X_i = -6$ e $\sum_{i=1}^5 X_i^2 = 12$, calcule:

a) $\sum_{i=1}^5 (4X_i + 5)$

b) $\sum_{i=1}^5 X_i (X_i - 2)$

c) $\sum_{i=1}^5 (X_i - 3)^2$