WS #1 - Notation

Math 150, Jo Hardin

Wednesday, January 21, 2026

Your Name: _____

Names of people you worked with: _____

Which piece of the material for Math 150 seems most daunting? Which piece seems most fun?

Task:

Assume we have two very small **samples**: $(y_{11} = 3, y_{12} = 9, y_{21} = 5, y_{22} = 1, y_{23} = 9)$.

Find $\hat{\mu}_1, \hat{\mu}_2, \hat{\epsilon}_{11}, \hat{\epsilon}_{12}, \hat{\epsilon}_{21}, \hat{\epsilon}_{22}, \hat{\epsilon}_{23}, n_1, n_2$ (using the notation / ideas from Model 1).

Hint: it is a good idea to talk within your group about what the subscript notation means.

Solution:

$$\hat{\mu}_1 = 6$$
$$\hat{\mu}_2 = 5$$
$$\hat{\epsilon}_{11} = -3$$
$$\hat{\epsilon}_{12} = +3$$
$$\hat{\epsilon}_{21} = 0$$
$$\hat{\epsilon}_{22} = -4$$
$$\hat{\epsilon}_{23} = +4$$
$$n_1 = 2$$
$$n_2 = 3$$