WS #1 - Notation

Math 150, Jo Hardin

Wednesday, January 22, 2025

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).

Solution:

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