LINEAR MODELS

LINEAR MODELS AND DECISIONS

(MENDENHALL, BOCK, SEARLE)

$Y = XB + E$

DERIVATION OF $\hat{B} = (X'X)^{-1}X'Y = R^{-1}Q'Y$

$E(\hat{B})$

$V(\hat{B})$

NON-EUCLIDEAN INNER PRODUCTS (e.g. WEIGHTED DATA POINTS)

POLYNOMIAL MODEL - INTERACTIONS

DUMMY VARIABLES - CONTRAST VECTORS

TRANSFORMATIONS OF VARIABLES

FIXED - RANDOM - MIXED EFFECTS (INTRODUCTION) (SEARLE)

HYPOTHESIS TESTING