LBGFS2024 - Aural Exam

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Exercise Platform

The Webr platform is available: https://webr.r-wasm.org/latest

Problem 1: Numerator Relationship Matrix

A given pedigree is to be used to compute the numerator relationship matrix and the inbreeding coefficients.

• See the given pedigree

Problem 2: Quantitative Genetics

Use the given dataset on one locus and one phenotypic observation for a set of animals to compute parameters of the one-locus model.

• See the given dataset

Problem 3: Pedigree-Based Prediction of Breeding Values

The given dataset is to be used to predict breeding values using a BLUP-based model.

• See the given dataset

Problem 4: Prediction of Genomic Breeding Values

The given dataset is used to predict genomic breeding values.

• See the given dataset