Regression Evaluation Formula Guide

1. Prediction error

Actual minus prediction, in grade points.

2. Absolute error

Absolute value of actual minus prediction.

3. MAE

Mean of absolute errors; 1.2 points for five fictional students.

4. MSE

Mean of squared errors; 1.6 grade-point-squared for five fictional students.

5. RMSE

Square root of MSE; about 1.2649 grade points.

6. R^2

$1-\mathrm{SSE}/\mathrm{SST}$; 0.80 for the five fictional values.

7. Baseline

Predict the training target mean; never use test targets.

8. Evaluation

CV on training data for selection; held-out test only after selection.