



6.6 Review Questions

6.6.R1

1/1 point (graded)

$\sqrt{\sum_{j=1}^p \beta_j^2}$ is equivalent to:

☐ $X\hat{\beta}$

☐ $\hat{\beta}^R$

☐ C_p statistic

☒ $\|\beta\|_2$



Explanation

The expression is the L2 norm of β .

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6.6.R2

1/1 point (graded)

You perform ridge regression on a problem where your third predictor, x_3 , is measured in dollars. You decide to refit the model after changing x_3 to be

measured in cents. Which of the following is true?:

☐ $\hat{\beta}_3$ and \hat{y} will remain the same.

☐ $\hat{\beta}_3$ will change but \hat{y} will remain the same.

☐ $\hat{\beta}_3$ will remain the same but \hat{y} will change.

☒ $\hat{\beta}_3$ and \hat{y} will both change.



Explanation

The units of the predictors affects the L2 penalty in ridge regression, and hence $\hat{\beta}_3$ and \hat{y} will both change

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