

# Midterm

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**I certify that all work on this exam is my own original work and have upheld ISU's policy on academic dishonesty.**

## 1

- a. irreducible error
- b. standard error
- c. multiple linear regression
- d. residual plots
- e. 12
- f. the response Y
- g. inference, prediction
- h. model 2
- i. model 1
- j.  $\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_p X_p, p \in \mathbb{Z}^+$

## 2

- a.  $\beta_0 = 2, \beta_1 = 3, \beta_2 = 4$
- b.  $E(Y) = 2 + 3(2) + 4(1) = 12$