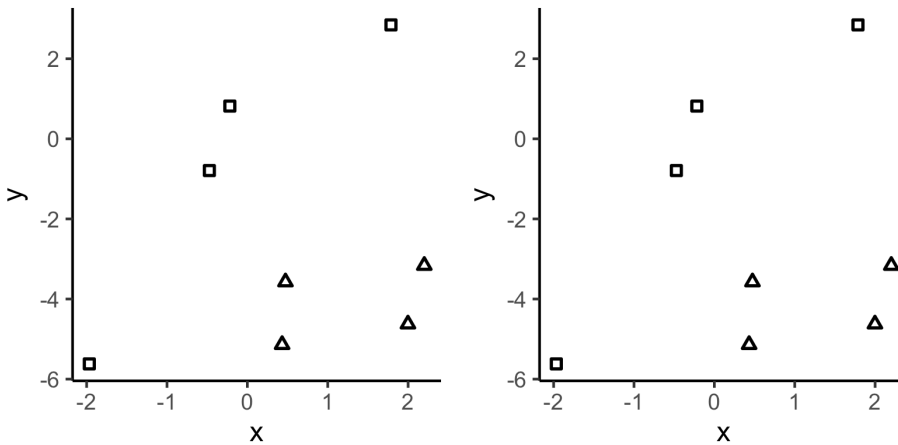


Name:

Date:

Quiz #8



The two figures above show the same data: a continuous response with two predictors (one continuous, one categorical).

On the left figure, sketch the line for \hat{y} for the following model, where z is represented by the shapes.

$$y \sim \text{Normal}(\mu, \sigma)$$
$$\mu = \beta_0 + \beta_1 x + \beta_2 z$$

On the right figure, sketch the line for \hat{y} for the following model.

$$y \sim \text{Normal}(\mu, \sigma)$$
$$\mu = \beta_0 + \beta_1 x + \beta_2 z + \beta_3 xz$$

Roughly estimate β_2 and β_3 in the second model.