Homework 3

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Stat 435

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$$\pi = \frac{\exp(\beta_0 + \beta_1 x_1 + \dots + \beta_p x_p)}{1 + \exp(\beta_0 + \beta_1 x_1 + \dots + \beta_p x_p)}$$

$$OR = \frac{\pi}{1-\pi} = \exp(\beta_0 + \beta_1 x_1 + \dots + \beta_p x_p)$$

$$\log(OR) = \beta_0 + \beta_1 x_1 + \dots \beta_p x_p$$

$$\log\left(\frac{\pi}{1-\pi}\right) = \beta_0 + \beta_1 x_1 + \dots + \beta_p x_p$$

$$\frac{\pi}{1-\pi} = \exp(\beta_0 + \beta_1 x_1 + \dots + \beta_p x_p)$$

$$\pi = \frac{\exp(\beta_0 + \beta_1 x_1 + \dots + \beta_p x_p)}{1 + \exp(\beta_0 + \beta_1 x_1 + \dots + \beta_p x_p)}$$