

STA 302 / 1001 (A. Gibbs)  
Additional Practice Problems for Chapter 5 of Sheather

1. Which of the following models can use linear regression techniques to estimate the parameters?

(a)  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_1^2 + \beta_3 \log(X) + e$

(b)  $Y = \exp(\beta_0 + \beta_1 X) \cdot e$

(c)  $Y = \beta_0 \exp(\beta_1 X) + e$

(d)  $Y = 1/[1 + \exp(\beta_0 + \beta_1 X + e)]$