

HW5

$$1) \frac{\partial \ln(\text{price})}{\partial \ln(\text{lotsize})} = \beta_2 + \beta_{11} \cdot 2 \ln(\text{lotsize})$$

$$\frac{\partial \ln(\text{price})}{\partial \text{bedrooms}} = \beta_3 + \beta_{12} \cdot \text{bedrooms} + \beta_{13} \cdot D10$$

$$\frac{\partial \ln(\text{price})}{\partial \text{bathrooms}} = \beta_4 + \beta_{12} \cdot \text{bedrooms}$$

$$\frac{\partial \ln(\text{price})}{\partial D10} = \beta_{10} + \beta_{13} \cdot \text{bedrooms}$$

The other variables without polynomials/interactions have the usual interpretations.

All coefficients are expected to be positive except β_{11} , since the marginal effect of $\ln(\text{lotsize})$ is likely to be concave.