Econometricsassignment assignment

Economics

Question B would expect [pick] to be greater than O, this is because under normal resistances the increase in the size of the land on which the house has been constructed would incur more costs on acquiring the land in the first place, thus the house price would also increase to cover this increase. If [pick is less than O, it would imply that houses built on small lot of land would cost more than house built on large lot of land, this would not occur in the normal market unless in extreme outlying circumstances.

Question C Zero Conditional Mean Assumption is " a key assumption used in multiple aggression analysis that states that, given any values of the explanatory variables, the expected value of the error equals zero" (Walbridge,) . Within the context of the equation listed above, the error term[pick]has no relation with any of the explanatory variables " log(lotteries' and " log(serfs), in other words [p[pick] mean independent of " log(lotteries)" and " log(serfs). This also indicates that the [p[pick accounts for the variation between the predicted value of a house price and the actual value of a house price.

Question D Part i. " price" measures house prices in values of $sass " lotteries" is the size of the lot in square feet (size of the land) " serfs" is the size of the house in square feet " bedims" is the number of bedrooms in the house Part ii. I Variables Sample Mean I Price I Loiters feet) (square feet) 3. 568182 (bedrooms) part iii. Deviation 102. 7134 10174. 15 577. 1916 10. 8413926 Question E Original Equation New Equation I lesser | 293. 546 ($293 546) | 9019. 864 (square I albums 12013. 693 price Sample Standard I I lotteries I I bedims

Approximated New Equation n= 88 +0. 6353 The coefficient of " log(serfs)" is the estimated elasticity of " price" with respect to " serfs". From this number, we learn that in this model, an additional square feet increase to the house size would increase the house price on average by 0. 76%, assuming that the other independent variable in this model are held constant. This coefficient is economically significant for two reasons: one, the coefficient for the size of the house is approximately 4. 5 times larger than the coefficient for the size of the lot.

This indicates that on the same sized lot, the larger the house the higher the price, and if the house reached the legal size (such as lot's own green strip limitations) the house can increase its value by been constructed as a two storey duplex or even a three storey mansion. Two, due to the limited affect of " lotteries" on " price" in comparison with " serfs", it could be suggested that the land of this area is cheaper than the construction materials and labor costs, and that it is a good time for developers to acquire land in this area for development n the future when housing prices go up.

This concreteness of this suggestion can be found in RE of 0. 6353, indicating 63. 53% of the variation in the price is explained by lot size and house size. Question F Utilizing the equation derived above, given that all other variables are held the same, the expected percentage difference of price when comparing 9000 square feet lot to 9900 square feet lot is approximated to 0. 0953102 or 9. 53%. Question G Old Equation RE= O. 6430 The coefficient of " bedims" is the estimated elasticity of " price" with respect to " bedims".

From this number, we learn that in this model, an additional bedroom would increase the house price on average by 3. 7%, assuming that the other independent variables in this model are held constant. The sample correlation between " bedims” and " lesser” is approximately 0. 5196, which indicate a moderate degree of linear association. This agrees with my expectations because there are two possibilities for bedroom construct, one is where larger houses WOUld have increased number of rooms, but also it is possible that a large house possess small numbers of large rooms.