**Problem 2 - (20 points)**

Use the following ANOVA table of a regression model, produced by a software package, to answer the questions below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Source** | **DF** | **Sum of** | **Mean** | **F Value** | **Pr > F** |
| **Squares** | **Square** |
| **Model** | 2 | 21187 | 10593.5 | 347.44 | <0.00001 |
| **Error** | 297 | 9057 | 30.49 |  |  |
| **Corrected Total** | 299 | 30244 |  |  |  |

1. How many observations are used for this model?

**There are total of 300 observations 299+1**

1. How many parameters are used in this model?

**There are 2 parameters used in the model**

1. What is the R-square for this model?

**1-(9057/30244) = 0.700**

1. What is the F value of the model?

**The F-value of the model is 347.44**

1. Is the F value of the model significant at a 5% level of significance? Why?

**The F-value is significant as the p-value is less than 5%**