

### Problem 1

```
> summary(iris)
      Sepal.Length      Sepal.width      Petal.Length      Petal.width      Species
Min.      :4.300    Min.      :2.000    Min.      :1.000    Min.      :0.100    setosa      :50
1st Qu.:5.100    1st Qu.:2.800    1st Qu.:1.600    1st Qu.:0.300    versicolor:50
Median :5.800    Median :3.000    Median :4.350    Median :1.300    virginica  :50
Mean      :5.843    Mean      :3.057    Mean      :3.758    Mean      :1.199
3rd Qu.:6.400    3rd Qu.:3.300    3rd Qu.:5.100    3rd Qu.:1.800
Max.      :7.900    Max.      :4.400    Max.      :6.900    Max.      :2.500
```

### Problem 2

$R^2$  of the linear regression is 0.7539. Details below.

```
> summary(mod)

Call:
lm(formula = LogAuctionIndex ~ . - Year, data = wine)

Residuals:
    Min       1Q   Median       3Q      Max
-0.7040 -0.2633 -0.0705  0.2548  0.7219

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  3.2158448   8.3224642   0.386   0.701
HarvestRain  -0.0044695   0.0008301  -5.384 3.70e-06 ***
GrowTemp      0.6279546   0.1020578   6.153 3.18e-07 ***
HarvestTemp  -0.0322375   0.0462512  -0.697   0.490
Age          -0.0150799   0.0444732  -0.339   0.736
FrancePop    -0.1061962   0.1297533  -0.818   0.418
USAlcConsump  0.0486833   0.0993300   0.490   0.627
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.3499 on 39 degrees of freedom
Multiple R-squared:  0.7539,    Adjusted R-squared:  0.716
F-statistic: 19.91 on 6 and 39 DF,  p-value: 1.736e-10
```