Use the data below to calculate the requested regression results by hand

```
    y         x1      x2      x3

  107.0        1       1       1
   75.8        9       3      -1
   66.6        9       3      -3
   70.4        1      -1      -3
   59.5        9      -3       3
  105.0        1      -1       3
   94.6        1       1      -1
   81.5        1      -1      -1
   88.0        1       1      -3
   96.4        9       3       3
   29.2        9      -3      -3
   46.0        9      -3      -1
  107.2        1       1       3
   58.9        9      -3       1
   97.         1      -1       1
   79.7        9       3       1
```

1) Estimate the parameters of a regression model that relates x1, x2, and x3 to y.

2) Test for the significance of the regression model using the analysis of variance.
   Interpret the test at the 1% significance level. What is your conclusion?

3) Test for the significance of the individual coefficients using t tests.
   Interpret the tests at the 5% significance level. What are your conclusions?