2.1.b)

Created the ANOVA table using MiniTab:

A table of numbers and letters

Description automatically generated with medium confidence

Created T Distribution using StatKey:

A graph of a function

Description automatically generated

Because p-value is <0.05 in ANOVA chart, we can reject H0 that x8=y.

2.1.d)

A screenshot of a graph

Description automatically generated

R-sq is 54.57%. So 54.47% of the total variability in y is explained by this model.

2.1.e)

95% CI can be found with the formula:

A number and numbers on a white background

Description automatically generated

Where 7.73=y-hat if x8=2000

=-2.779 (found using StatKey T Distribution).

MSres = 5.726.

Mean of x8 = 2110.14 (from statkey)

Sxx=178.1 (from ANOVA table)

So now we have:

A square root of a mathematical equation

Description automatically generated

CI= [-15.2111,30.67116]