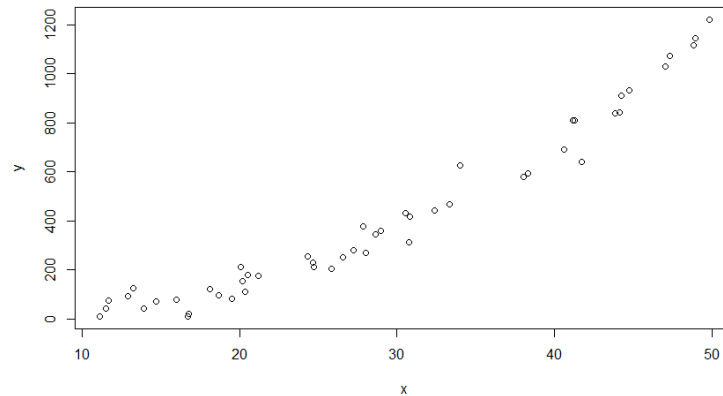Joshua Main-Smith
R 5
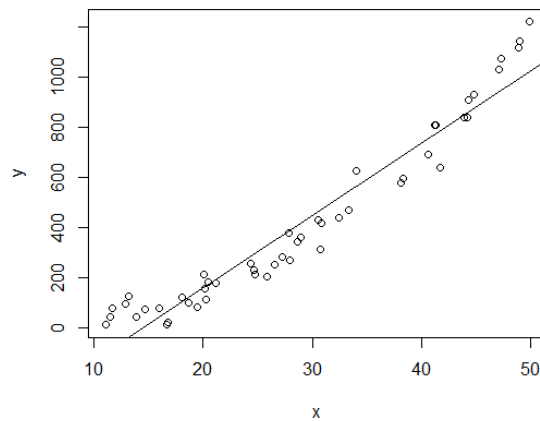joshuamainsmith@ufl.edu
UFID: 7160-7655
April 12, 2020

1. Create a scatterplot of y vs x

```
plot(x, y)
```


2. Fit a simple linear regression model using y as the response and plot the regression line (with the data)

```
> plot(x, y)
> abline(lm(y~x), cex = 1.3,pch = 16)
```


3. Test whether x is a significant predictor and create a 95% CI around the slope coefficient.

4. Report and interpret the coefficient of determination.
5. For x=20, create a CI for E(Y|X=20).
6. For x=150, can you use the model to estimate E(Y|X=150)? Discuss.
7. Does the model appear to be linear with respect to x? Discuss, and if not, provide alternative model and repeat steps 1-6.