For each of the problems, please make sure to do the following:

1. Before performing any hypothesis test, construct appropriate plots of the data and make an initial judgment about the mean difference. After performing the test, relate the plot to your final conclusion.
2. Please use only the “unequal variances” based methods when making inferences about μ1 - μ2
3. When performing hypothesis tests, be sure to use all three methods (confidence interval, test statistic and p-value), and complete all steps for each method.

6.5

b) Ignore the original question. Instead, answer: what sample size is needed to achieve a power level of 0.90 when the effect size is 10 and σ1 = σ2 = 20? The methods of Chapter 5 can be applied to this problem too, but accounting for the different hypotheses (see the partial answers for more information).

6.6

6.11

Ignore c) and d). Instead, answer: Is the normal distribution assumption satisfied for each population? Do you believe that the samples are really independent from each other?

6.28

c) Ignore the original question and verify if the normal distribution assumption for the differences in SENS values before and after treatment is satisfied.

6.29

c) Ignore the original question and investigate if the differences in final grades are normally distributed.

6.42