b) (10 points) what assumptions made in a) are checked by each plot?

c) (5 points) suppose that you change the alloy of the metal being used to make this part and you collect 12 random samples from the line after this change. Use only the data that you collected. Calculate a 95% confidence interval for the difference in the desirability function between the two materials. Assume that both desirability distributions are normally distributed and that the variances are equal.

Desirability Data from parts with new alloy (in time order):

34.00 34.26 51.20 32.60 35.20 33.26 35.62 34.25 45.30 36.40
34.80 37.50

d) (8 points) Use the Minitab output below to sketch (by hand) side by side Boxplots for the two sets of desirability data in c).

Descriptive Statistics

Variable	N	Mean	Median	StDev	SE Mean
Des	9	32.429	32.990	1.900	0.633
Des2	12	37.03	35.00	5.55	1.60

Variable	Min	Max	Q1	Q3
Des	29.080	34.870	30.835	33.865
Des2	32.60	51.20	34.06	37.22