

Pointers – Assessing Normality

Sections 7.3

Assessing normality involves determining whether a set of data comes from a population that is approximately normally distributed.

Normal Probability Plot (our textbook) or QQ Plot (StatCrunch)

The first step for assessing normality is to create a QQ plot. We do **not** make these by hand – **USE STATCRUNCH!**

Once you create the QQ plot, look to see if it is close to linear. It can vary by a little bit near the ends of the graph. StatCrunch will give you a correlation statistic – if it is larger than the critical value then you can conclude that the data come from a population that is normally distributed.

Table of Critical Values for Sample Size n

<i>N</i>	<i>.05</i>	<i>N</i>	<i>.05</i>
5	.880	23	.956
6	.888	24	.957
7	.898	25	.959
8	.906	26	.960
9	.912	27	.961
10	.918	28	.962
11	.923	29	.963
12	.928	30	.964
13	.932	35	.969
14	.935	40	.972
15	.939	45	.974
16	.941	50	.977
17	.944	60	.980
18	.946	70	.983
19	.949	80	.985
20	.951	90	.986
21	.952	100	.987
22	.954		

StatCrunch

- Enter all of the data in the first column, 1 value per line.
- Press the Graph button, and select QQ Plot.
- Select the box labeled “Correlation Statistic”.
- Click on Compute!