

8.E: Advanced Graphs (Exercises)

General Questions

Q1

What are $Q-Q$ plots useful for?

Q2

For the following data, plot the theoretically expected z score as a function of the actual z score (a $Q-Q$ plot).

0	1.2
0	1.2
0	1.2
0	1.2
0	1.3
0	1.3
0.1	1.3
0.1	1.3
0.1	1.3
0.1	1.4
0.1	1.4
0.2	1.5
0.2	1.6
0.3	1.7
0.3	1.7
0.4	1.7
0.5	1.8
0.6	1.8
0.6	1.9
0.6	1.9
0.6	2.0
0.6	2.0
0.6	2.0
0.6	2.1
0.6	2.1
0.6	2.1
0.7	2.1
0.7	2.1
0.8	2.1

0.8	2.1
0.8	2.3
0.8	2.5
0.8	2.7
0.9	3.0
1.0	4.2
1.0	5.0
1.1	5.7
1.1	12.4
1.2	15.2
1.2	

Q3

For the data in problem 2, describe how the data differ from a normal distribution.

Questions from Case studies

Q4

For the "SAT and College GPA" case study data, create a contour plot looking at University GPA as a function of Math SAT and High School GPA. Naturally, you should use a computer to do this.

Q5

For the "SAT and College GPA" case study data, create a 3D plot using the variables University GPA, Math SAT, and High School GPA. Naturally, you should use a computer to do this.

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