# Data Visualization

## Introduction

Data points may not all lie on the normal qq line, even if they are generated from normal distribution.

The lineup protocol is a way to help students interpret Q-Q plots while they are still honing their intuition.

In the following test questions, a true data plot is generated from the indicated distribution, and a set of null plots are generated from the standard normal distribution.

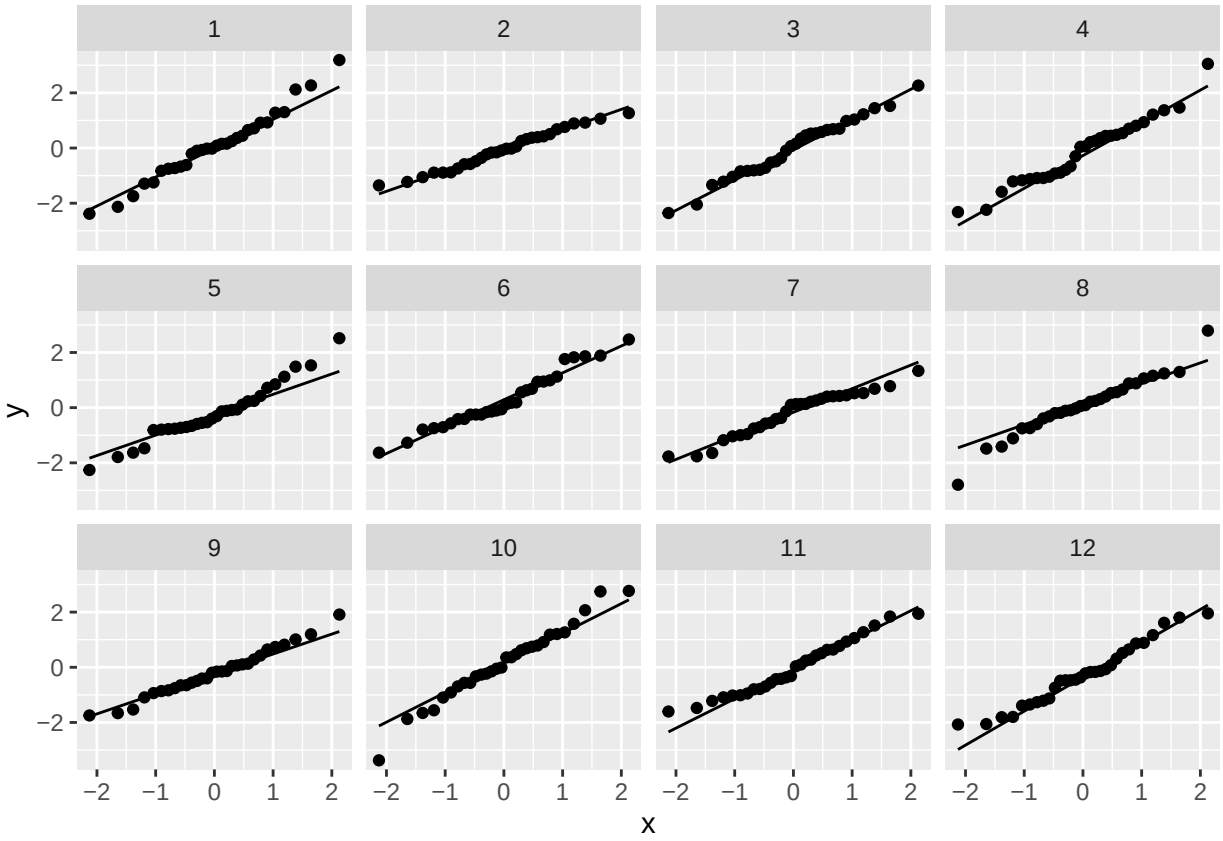
Students are asked if they can identify the true data plot. For each lineup, enter your answer as a single number below the plot.

ps:Students who cannot access google sheet may send answers to Chenghui Zheng via email: chenghui.zheng @mail.utoronto.ca

## Survey

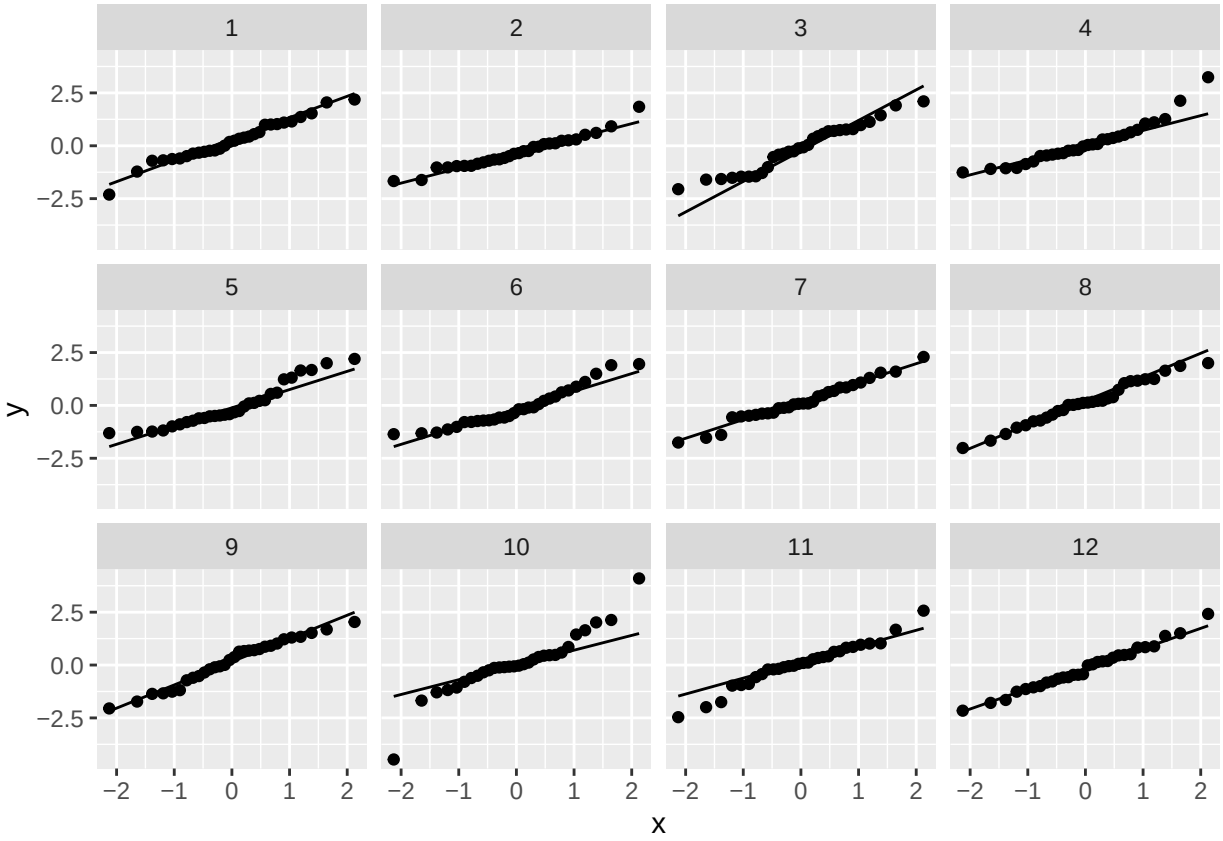
1.regular t distribution with df=5

Please select ONE plot that is different from others, and put your number on the line below (no spaces)



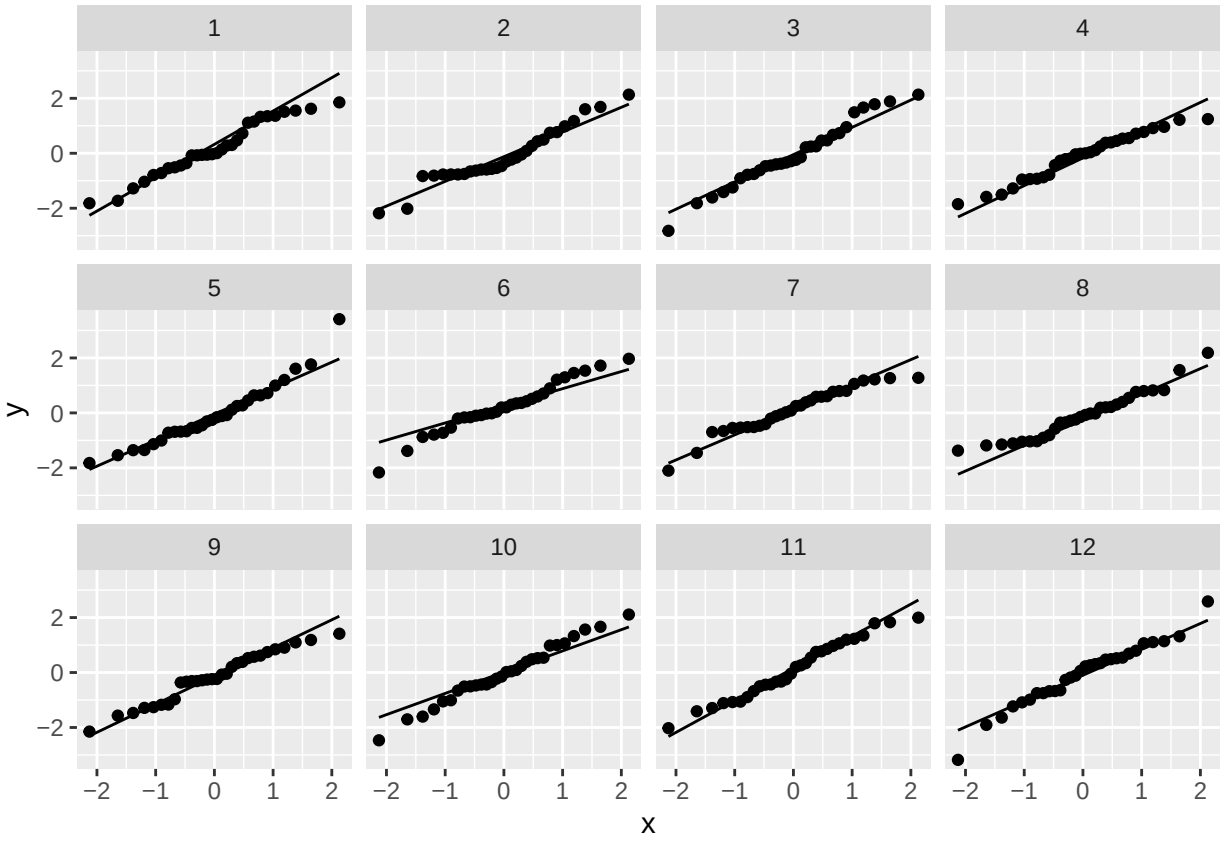
2.scaled t distribution with df=5

Please select ONE plot that is different from others, and put your number on the line below (no spaces)



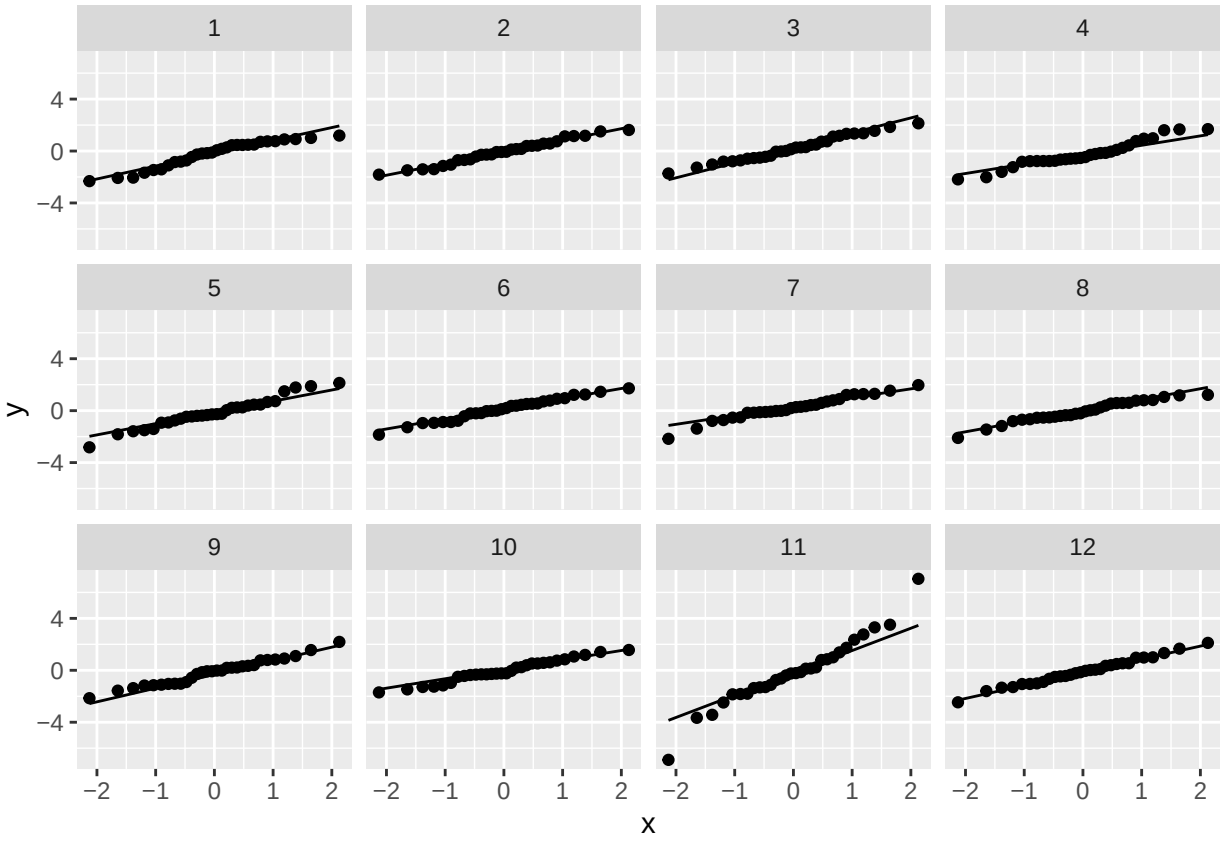

3.regular t distribution with df=30

Please select ONE plot that is different from others, and put your number on the line below (no spaces)



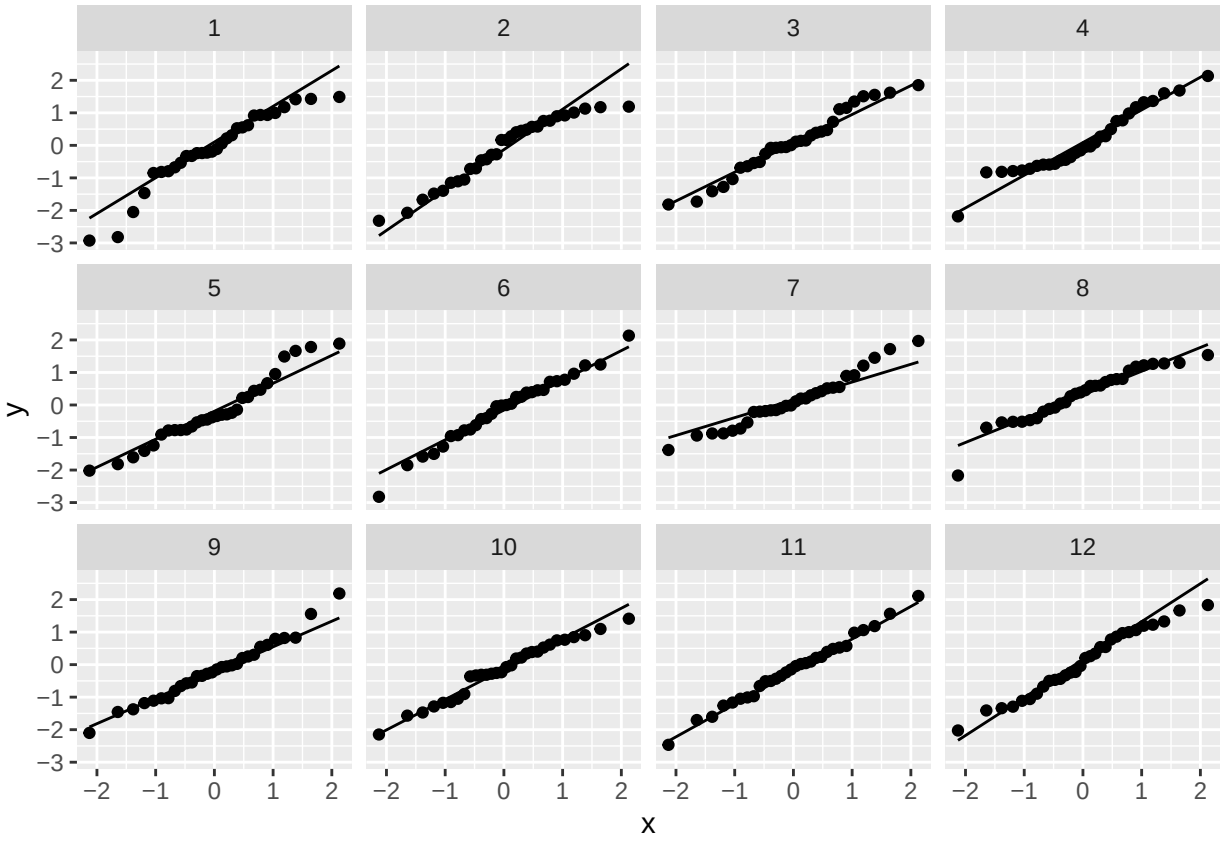

4. Cauchy distribution simulation

Please select ONE plot that is different from others, and put your number on the line below (no spaces)




5.contaminated normal sample(20 data from N(0,1), 10 from N(0,4))

Please select ONE plot that is different from others, and put your number on the line below (no spaces)


1
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7
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9
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y
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−3
−2
−1
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1
2