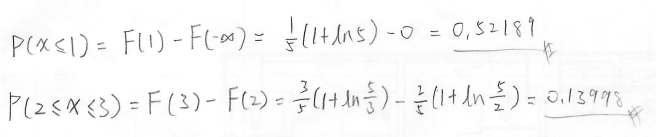
機械所設計組 R12522615 王邑安 HW\_ID:2

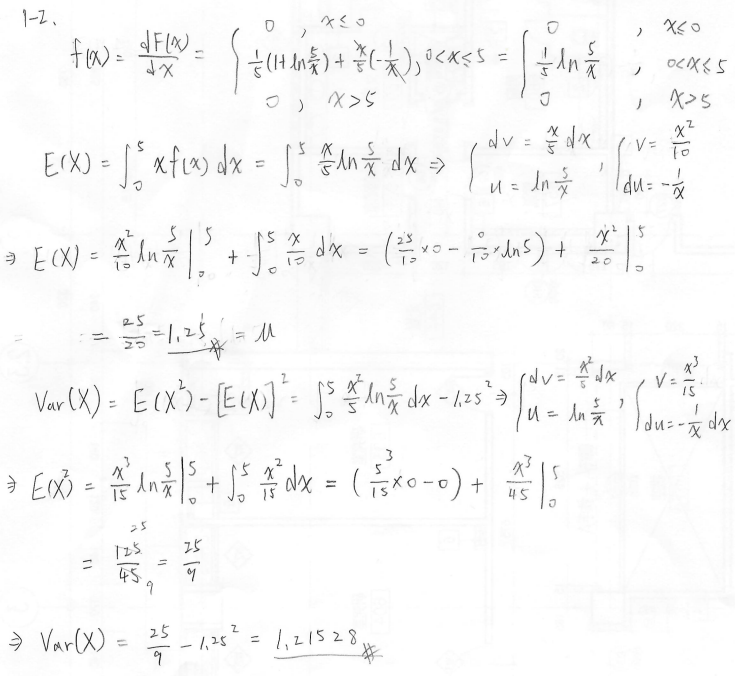
**Introduction to statistical control and optimization**

Homework 3

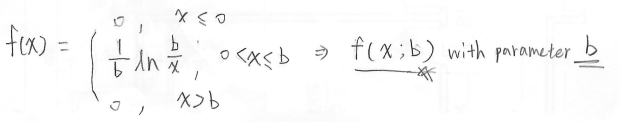








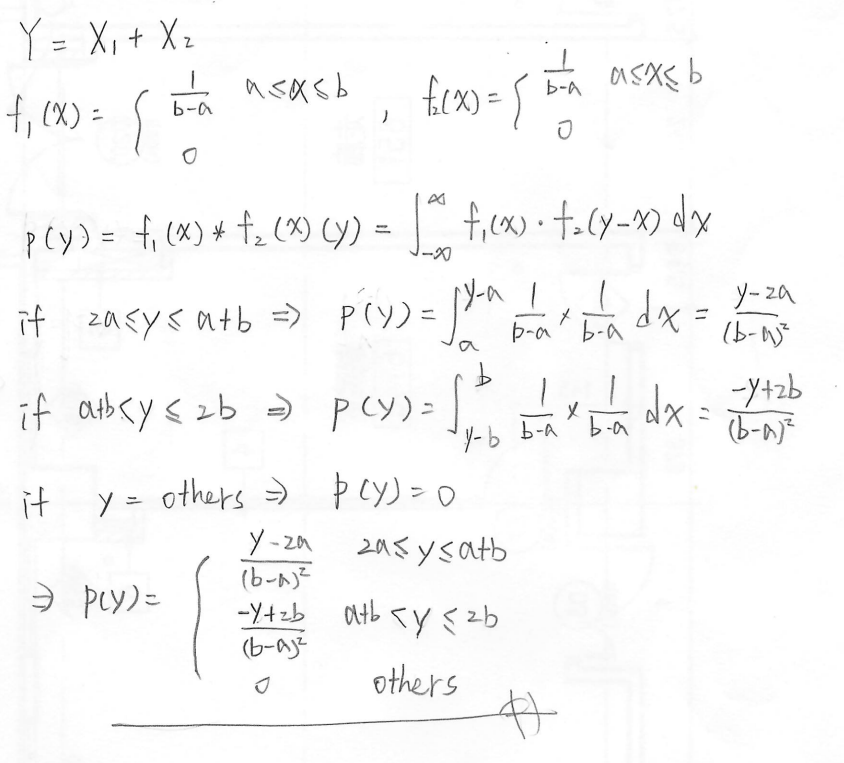






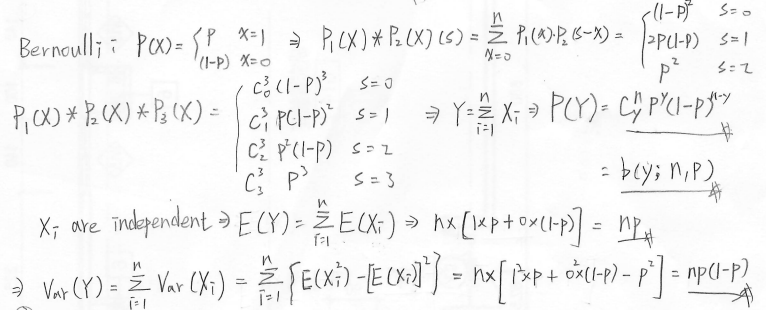




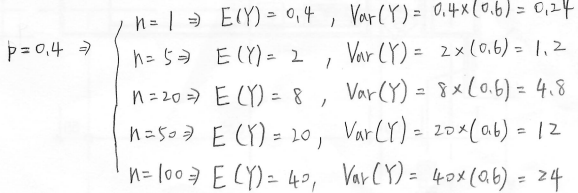





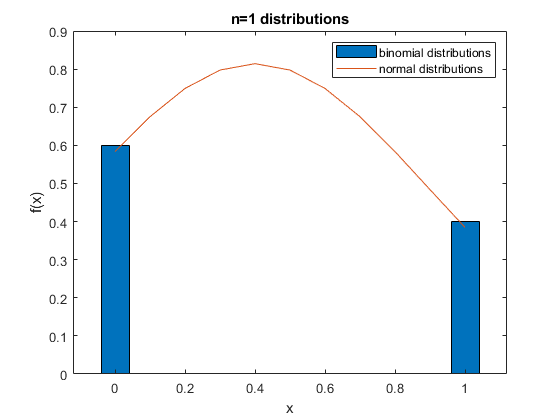
4-1.

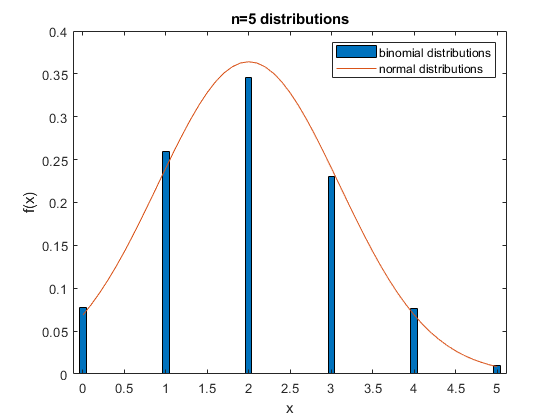


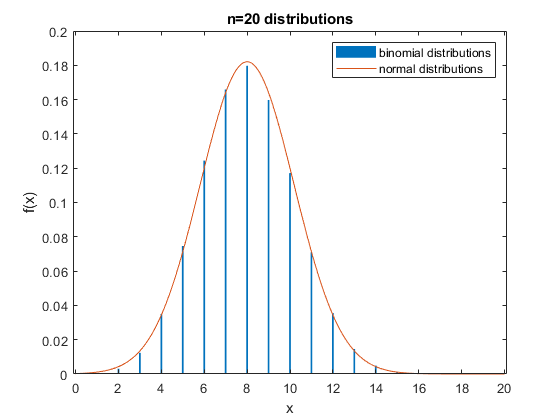
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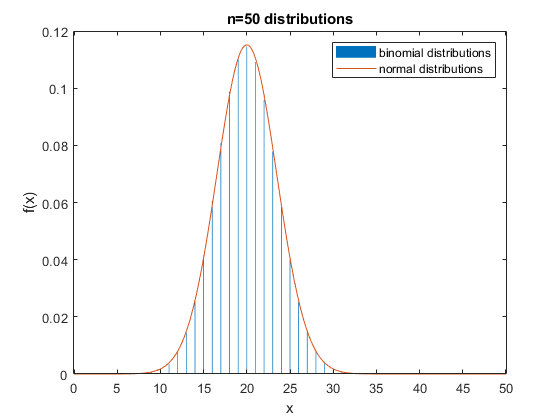


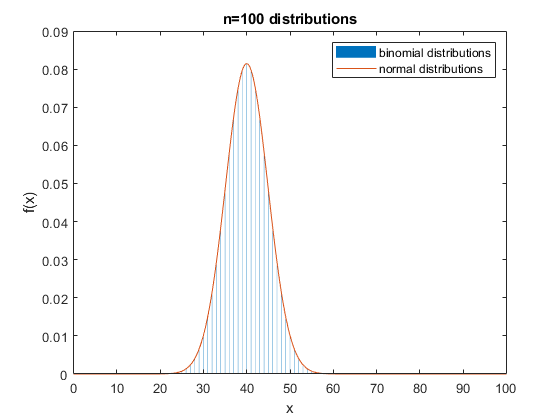
4-3.







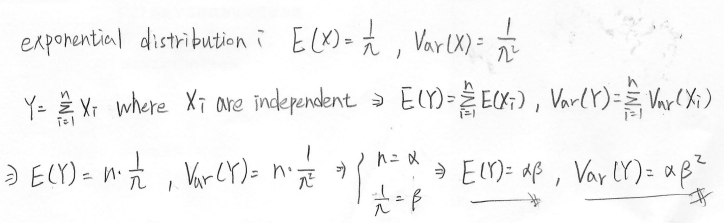




As the trial number n increases, the binomial distributions will increasingly resemble the normal distribution.



5-1.



5-2.

The distribution curve becomes shorter and wider as n becomes larger.

5-3.

The Central Limit Theorem states that regardless of the initial probability distribution's spread of Xi, the overall probability density will progressively resemble a normal distribution as more and more Xi are summed together.