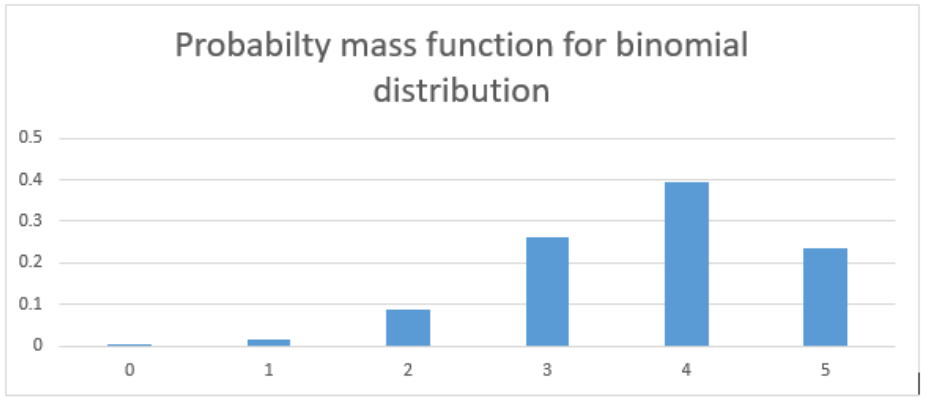
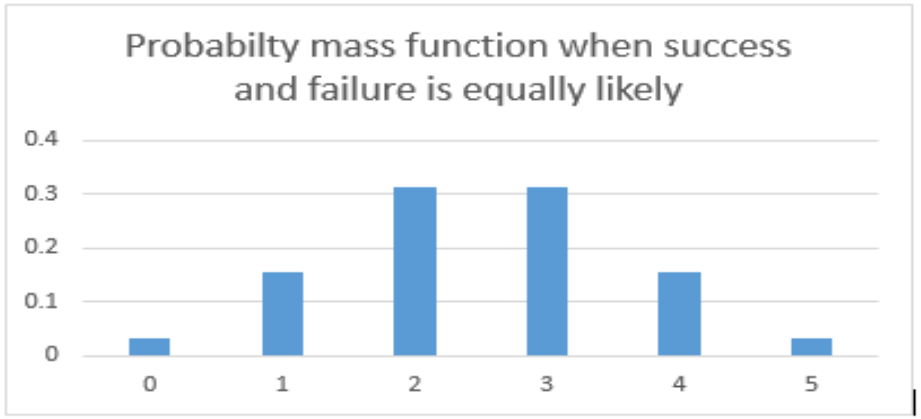
Introduction to Data Science

In the previous video

- Probability mass function
- Bernoulli Trials
- Probability Mass function of Bernoulli trials

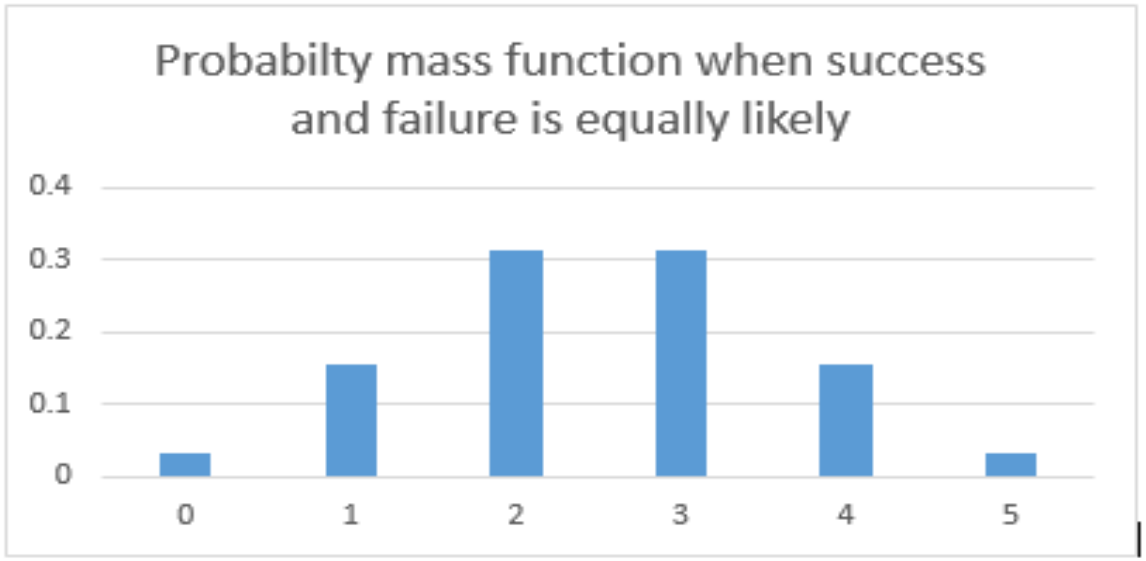


P=0.75, Q=0.25



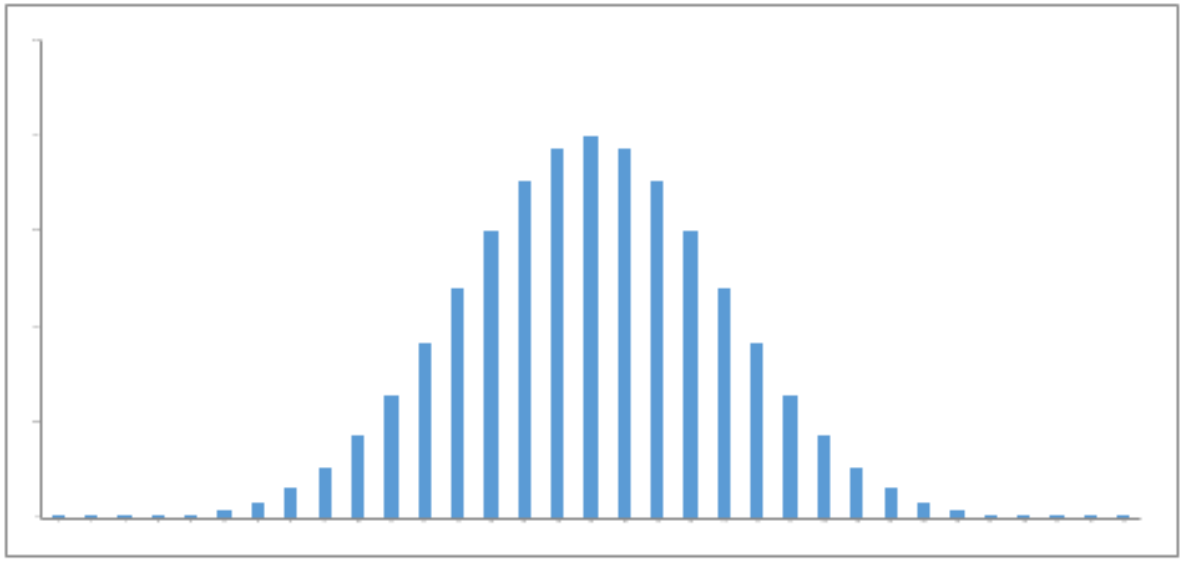
P=0.5, Q=0.5

P=0.5 , Q=0.5



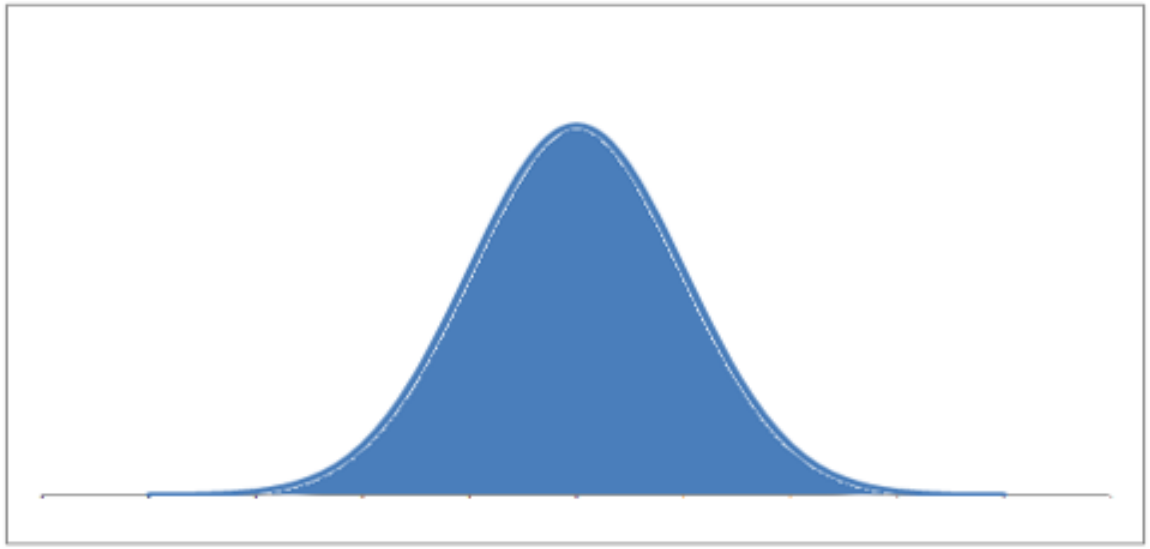
P=0.5, Q=0.5

Large number of Bernoulli trials, p=0.5, q=0.5



Large number of trails

Infinite number of Bernoulli trials, p=0.5, q=0.5



Infinite number of trails

← Probability Density Function

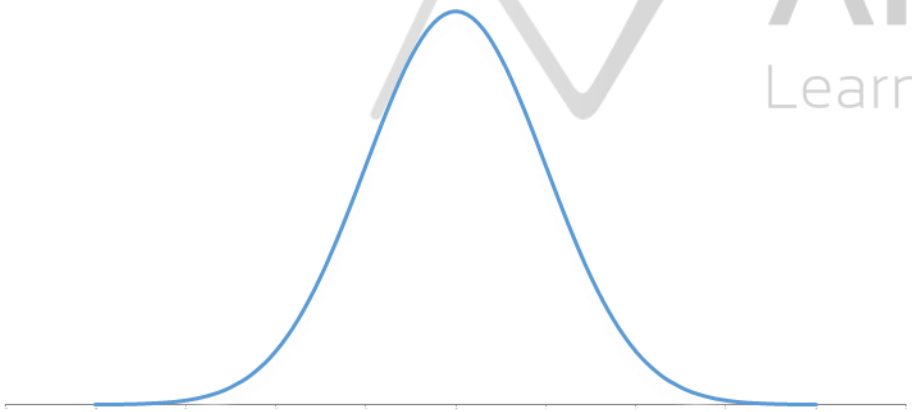
Continuous Random Variables

- Continuous Random variables which can take any value in a given range
- For Example:
  - Amount of Sugar in an orange
  - Life of a fly
- Probability Distribution is known as **Probability density function**

Calculating Probabilities for Continuous Random Variables

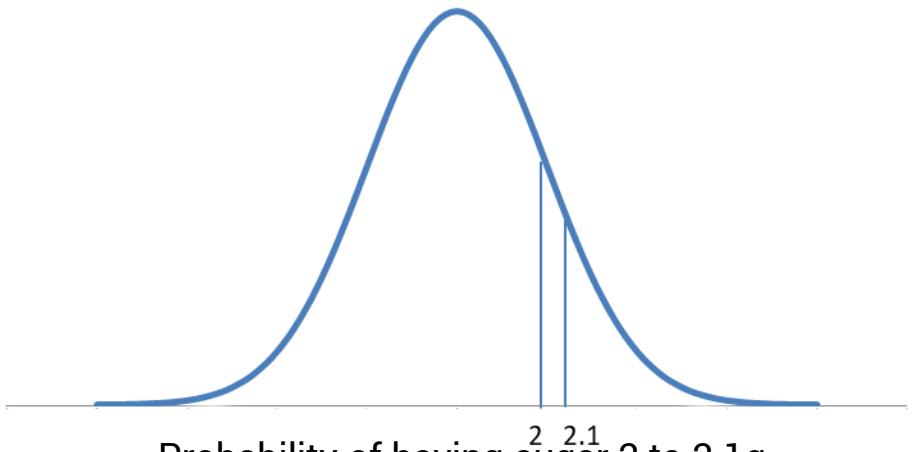
- Calculate probabilities for a range rather than a single value
- Probabilities are calculated by the area under the graph of the probability Density function

Probability Density Function



Amount of Sugar in an orange

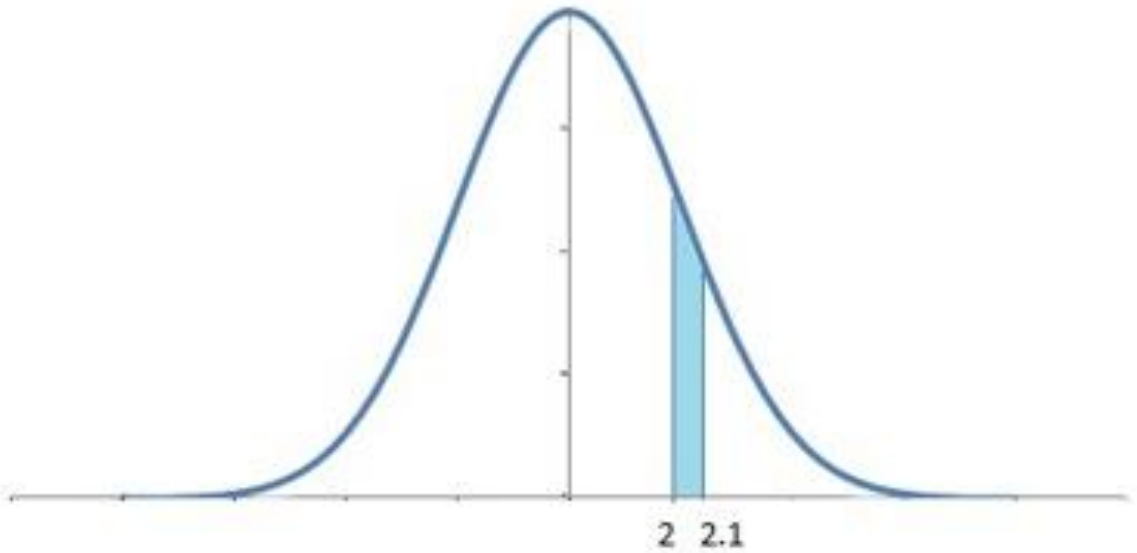
Probability Density Function



Probability of having sugar 2 to 2.1g

Calculating Probabilities for Continuous Random Variables

Probability Density Function



Probability of having sugar 2 to 2.1g

In this video

- Probability mass function for large number of Bernoulli Trials
- Probability function for infinite number of Bernoulli Trials
- Continuous Random Variables
- Probability Density Function of Continuous random variables