Triangular distribution

Def

A distribution whose graphs is a triangle.

PDF

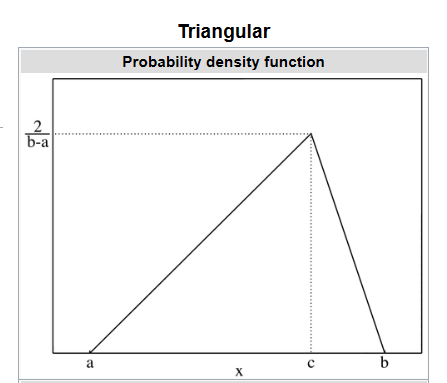
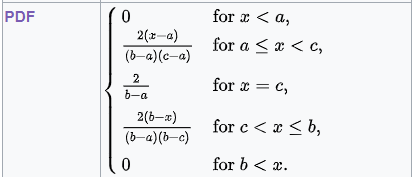


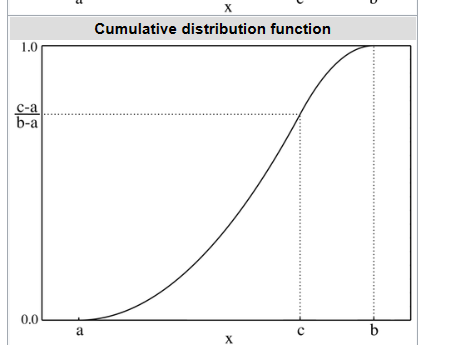
Figure 1.1

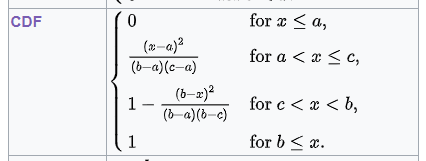


Proof:

By definition of PDF.

CDF





Proof:

See PDF graph from above figure (Figure 1.1)

Way 1:

Integrate PDF. The relationship between PDF and CDF.

Way 2:

Evaluate the area. The definition of CDF.

Expected Value



Proof

By the defintion of Expected Value.

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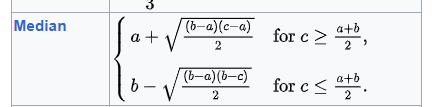
Variance

正在插入影像...

Proof:

Skip

Median



Proof:

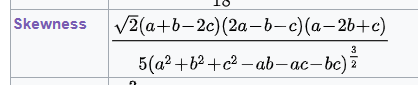
Skip

Mode

正在插入影像...

Proof:

Skewness



Proof:

Skip

Ref

[Triangular distribution - Wikipedia](https://en.wikipedia.org/wiki/Triangular_distribution)