# Beta distribution

PDF

=

CDF

=

Proof:

=

=

=

(since value ofdoes NOT effect by argument , we can take out.)

=

=

Expected Value

=

Median

=

Mode

= , if and

= any value of set , if and

= bimodal , if and

= , if and

= ,if and

Variance

=

Skewness

=

Method of Moments

See Ref section.

Ref

[Beta distribution - Wikipedia](https://en.wikipedia.org/wiki/Beta_distribution)