

Poisson Distribution

Statistic	Lambda	sample size	Parameters			Normal
			histogram	box	qqNorm	
means	0.001	20	Skewed	Unsymmetric	Step	No
		200	Skewed	Unsymmetric	Step	No
		2000	Skewed	Unsymmetric	Step	No
		20000	Bell	symmetric	Linear	Yes
		25000	Bell curve	symmetric	Linear	Yes
	1	50	Bell	symmetric	Linear	Yes
		25	Bell	symmetric	Linear	Yes
		12	Bell curve	symmetric	Linear	Yes
	25	100	Bell	symmetric	Linear	Yes
		50	Bell	symmetric	Linear	Yes
		25	Bell Curve	symmetric	Linear	Yes
medians	0.001	20	zero	zero	Constant -0	No
		200	zero	zero	Constant -0	No
		2000	zero	zero	Constant -0	No
	1	50	Highly Skewed	Unsymmetric	Step	No
		25	Highly Skewed	Unsymmetric	Step	No
		12	Highly Skewed	Unsymmetric	Constant	No
	25	25	Skewed	Less Symmetric	Step	No
		50	Skewed	Unsymmetric	Step	No
		100	Skewed	Unsymmetric	Step	No
		10	Bell Curve	symmetric	Linear	Yes
standard deviations	0.001	200	Skewed	Unsymmetric	Step	No
		2000	Skewed	Unsymmetric	Step	No
		20000	Skewed	Unsymmetric	Step	No
		15000	Bell Curve	symmetric	Linear	Yes
		50	Bell	symmetric	Linear	Yes
	1	25	Bell	symmetric	Linear	Yes
		12	Bell Curve	symmetric	Linear	Yes
		100	Bell	symmetric	Linear	Yes
	25	100	Bell	symmetric	Linear	Yes
		50	Bell Curve	symmetric	Linear	Yes
		25	Bell Curve	symmetric	Linear	Yes
minimums	0.001	Any value			Constant - 0	No
	1	Any value			Constant - 0	No
	25	Any value			Step Linear	No
maximums	0.001	Any value			Step	No
	1	Any value			Step	No
	25	Any value			Step Linear	No
IQRs	0.001	Any value			Constant - 0	No
	1	Any value			Step	No
	25	Any value			Step	No

Uniform Distribution

Concerned Statistic	Parameters		sample size	Normality			Normal
	A	B		Histogram	Box Plot	QQNorm	
Mean	0	1	2	Bell		Linear	Yes
			3	Bell		Linear	Yes
			4	Bell		Linear	Yes
Median	1	2	2			Linear	Yes
			3			Linear	Yes
			4			Linear	Yes
Standard Deviation	2	3	2			Linear	Yes
			3			Linear	Yes
			4			Linear	Yes
Minimum	3	4	2	Positive Skew			No
			3	Positive Skew			No
			4	Positive Skew			No
Maximum	4	5	2	Negative Skew			No
			3	Negative Skew			No
			4	Negative Skew			No
IQR	5	6	2			Linear	Yes
			3			Linear	Yes
			4			Linear	Yes

Binomial Distribution

Concerned Statistic	Parameters		sample size	Normality			Normal
	A	B		Histogram	Box Plot	QQNorm	
Mean	12	0.01	50	skewed	UnSymmetric	Step	No
			100	skewed	UnSymmetric	Step	No
			200	Bell like	Symmetric	Step Linear	No
			300	Bell	Symmetric	Linear	Yes
	20	0.5	100	Bell	Symmetric	Linear	Yes
			50	Bell	Symmetric	Linear	Yes
			25	Bell	Symmetric	Linear	Yes
	18	0.95	250	Not Bell	UnSymmetric	Step Linear	No
			125	Not Bell	UnSymmetric	Step Linear	No
			70	Bell	Symmetric	Linear	Yes
Median	12	0.01	All Value	Not Bell		Constant-0	No
	20	0.5	All Value	Not Bell		Step	No
	18	0.95	All Value	Not Bell		Step	No
Standard deviations	12	0.01	50	Not Bell		Step	No
			100	Not Bell		Step	No
			200	Not Bell		Step Linear	No
			300	Bell		Linear	Yes
	20	0.5	100			Linear	Yes
			50			Linear	Yes
			25			Linear	Yes
			10	Bell		Linear	Yes
	18	0.95	125			Linear	Yes
			70			Linear	Yes
Minimum	12	0.01	All Value	Not Bell		Constant-0	No
	20	0.5	All Value	Not Bell		Step	No
	18	0.95	All Value	Not Bell		Step	No
Maximum	12	0.01	All Value	Not Bell			No
	20	0.5	All Value	Not Bell			No
	18	0.95	All Value	Not Bell			No
IQR	12	0.01	All Value	Not Bell			No
	20	0.5	All Value	Not Bell			No
	18	0.95	All Value	Not Bell			No

Exponential Distribution

Concerned Statistic	Parameters	sample size	Normality			Normal
	Lambda		Histogram	Box Plot	QQNorm	
Means	0.001	10	Skewed	Unsymmetric	Positively Skewed	No
		15	Skewed	Unsymmetric	Positively Skewed	No
		30	Bell Curve	Symmetric	Linear	Yes
	1	5	Skewed	Unsymmetric	Positively Skewed	No
		10	Skewed	Unsymmetric	Positively Skewed	No
		15	Bell Curve	Symmetric	Linear	Yes
	25	5	Skewed	Unsymmetric	Positively Skewed	No
		10	Skewed	Unsymmetric	Positively Skewed	No
		15	Bell Curve	Symmetric	Linear	Yes
Median	0.001	10	Skewed	Unsymmetric	Positively Skewed	No
		15	Skewed	Unsymmetric	Positively Skewed	No
		30	Bell Curve	Symmetric	Linear	Yes
	1	10	Skewed	Unsymmetric	Positively Skewed	No
		15	Skewed	Unsymmetric	Positively Skewed	No
		25	Bell Curve	Symmetric	Linear	Yes
	25	10	Skewed	Unsymmetric	Positively Skewed	No
		15	Skewed	Unsymmetric	Positively Skewed	No
		25	Bell Curve	Symmetric	Linear	Yes
Standard Deviation	0.001	15	Skewed	Unsymmetric	Positively Skewed	No
		30	Skewed	Unsymmetric	Positively Skewed	No
		40	Bell Curve	Symmetric	Linear	Yes
	1	20	Skewed	Unsymmetric	Positively Skewed	No
		30	Skewed	Unsymmetric	Positively Skewed	No
		40	Bell Curve	Symmetric	Linear	Yes
	25	20	Skewed	Unsymmetric	Positively Skewed	No
		35	Skewed	Unsymmetric	Positively Skewed	No
		45	Bell Curve	Symmetric	Linear	Yes
Minimum	0.001	All Value	Skewed	Unsymmetric	Positively Skewed	No
	1	All Value	Skewed	Unsymmetric	Positively Skewed	No
	25	All Value	Skewed	Unsymmetric	Positively Skewed	No
Maximum	0.001	All Value	Skewed	Unsymmetric	Positively Skewed	No
	1	All Value	Skewed	Unsymmetric	Positively Skewed	No
	25	All Value	Skewed	Unsymmetric	Positively Skewed	No
IQRs	0.001	15	Skewed	Unsymmetric	Positively Skewed	No
		30	Skewed	Unsymmetric	Positively Skewed	No
		40	Bell Curve	Symmetric	Linear	Yes
	1	10	Skewed	Unsymmetric	Positively Skewed	No
		15	Skewed	Unsymmetric	Positively Skewed	No
		30	Bell Curve	Symmetric	Linear	Yes
	25	10	Skewed	Unsymmetric	Positively Skewed	No
		15	Skewed	Unsymmetric	Positively Skewed	No
		30	Bell Curve	Symmetric	Linear	Yes

Beta Distribution

Concerned Statistic	Parameters		sample size	Normality			Normal
	Alpha	Beta		Histogram	Box Plot	QQNorm	
Mean	2	2	40	Positive Skew	Symmetric	Non Linear	No
			80	Bell Curve	Symmetric	Non Linear	No
			100	Bell Curve	Symmetric	Linear	Yes
	20	2	10	Bell Curve	UnSymmetric	Linear	No
			15	Bell Curve	Symmetric	Linear	Yes
	2	8	60	Positive Skew	UnSymmetric	Non Linear	No
			90	Bell Curve	Symmetric	Linear	Yes
	0.5	0.5	10	Positive Skew	Symmetric	Non Linear	No
			15	Bell Curve	Symmetric	Non Linear	No
			20	Bell Curve	Symmetric	Linear	Yes
	0.5	0.2	5	Bell Curve	UnSymmetric	Linear	No
			10	Bell Curve	Symmetric	Linear	Yes
	0.2	5	20	Positive Skew	UnSymmetric	Non Linear	No
			30	Bell Curve	Symmetric	Linear	Yes
Median	2	2	1000	Negative Skew	Symmetric	Non Linear	No
			1500	Bell Curve	Symmetric	Linear	Yes
	20	2	2	Negative Skew	UnSymmetric	Non Linear	No
			5	Negative Skew	UnSymmetric	Linear	No
			10	Bell Curve	Symmetric	Linear	Yes
	2	8	50	Skew	Symmetric	Linear	No
			70	Bell Curve	Symmetric	Linear	Yes
	0.5	0.5	15	Negative Skew	Symmetric	Non Linear	No
			30	Bell Curve	Symmetric	Linear	Yes
	0.5	2	15	Negative Skew	UnSymmetric	Non Linear	No
			30	Negative Skew	UnSymmetric	Linear	No
			40	Bell Curve	Symmetric	Linear	Yes
	0.2	5	750	Skew	Symmetric	Linear	No
			1100	Bell Curve	Symmetric	Linear	Yes
Standard Deviation	2	2	30	Negative Skew	Symmetric	Linear	No
			45	Bell Curve	Symmetric	Linear	Yes
	20	2	2	Bell Curve	UnSymmetric	Non Linear	No
			5	Bell Curve	UnSymmetric	Linear	No
			10	Bell Curve	Symmetric	Linear	Yes
	2	8	40	Positive Skew	UnSymmetric	Non Linear	No
			80	Bell Curve	Symmetric	Linear	Yes
	0.5	0.5	20	Negative Skew	Symmetric	Linear	No
			40	Bell Curve	Symmetric	Linear	Yes
	0.5	2	20	Bell Curve	UnSymmetric	Non Linear	No
			40	Bell Curve	UnSymmetric	Linear	No
			50	Bell Curve	Symmetric	Linear	Yes
	0.2	5	35	Positive Skew	UnSymmetric	Non Linear	No
			70	Bell Curve	Symmetric	Linear	Yes

Beta Distribution

Concerned Statistic	Parameters		sample size	Normality			Normal
	Alpha <i>a</i>	Beta		Histogram	Box Plot	QQNorm	
Minimum	2	2	All Value				No
	20	2	All Value				No
	2	8	All Value				No
	0.5	0.5	All Value				No
	0.5	0.2	All Value				No
	0.2	5	All Value				No
Maximum	2	2	All Value				No
	20	2	All Value				No
	2	8	250	Positive Skew	UnSymmetric	Non Linear	No
			300	Bell Curve	Symmetric	Linear	Yes
	0.5	0.5	All Value				No
	0.5	0.2	All Value				No
	0.2	5	8000	Skew	UnSymmetric	Non Linear	No
			10000	Bell Curve	Symmetric	Linear	Yes
IQR	2	2	600	Positive Skew	UnSymmetric	Non Linear	No
			750	Bell Curve	UnSymmetric	Linear	No
			800	Bell Curve	Symmetric	Linear	Yes
	20	2	15	Positive Skew	Symmetric	Non Linear	No
			30	Bell Curve	Symmetric	Non Linear	No
			60	Bell Curve	Symmetric	Linear	Yes
	2	8	50	Skew	UnSymmetric	Non Linear	No
			80	Positive Skew	UnSymmetric	Non Linear	No
			100	Bell Curve	Symmetric	Linear	Yes
	0.5	0.5	20	Positive Skew	UnSymmetric	Non Linear	No
			40	Positive Skew	Symmetric	Non Linear	No
			60	Bell Curve	Symmetric	Linear	Yes
	0.5	0.2	100	Positive Skew	UnSymmetric	Non Linear	No
			150	Skew	Symmetric	Linear	No
			200	Bell Curve	Symmetric	Linear	Yes
	0.2	5	25	Positive Skew	UnSymmetric	Non Linear	No
			50	Positive Skew	UnSymmetric	Non Linear	No
			75	Skew	UnSymmetric	Non Linear	No

CAUCHY DISTRIBUTION

Concerned Statistic	Parameters		sample size	Normality			Normal
	Location	Scale		Histogram	Box Plot	QQNorm	
Mean	0	1	For Any (n)	No Bell Curve			Not Normal for any sample size
Median	0	1	20	Bell Curve	Symmetric	Linear	Yes
	0	1	40	Bell Curve	Symmetric	Linear	Yes
	0	1					
Standard Deviation	0	1	For Any (n)			Linear	Not Normal for any sample size
	0	1					
	0	1					
Minimum	0	1	For Any (n)				Not Normal for any sample size
	0	1					
	0	1					
Maximum	0	1	For Any (n)				Not Normal for any sample size
	0	1					
	0	1					
IQR	0	1	50	No Bell Curve		Non Linear	Yes
	0	1	100	No Bell Curve		Non Linear	Yes
	0	1	150	Bell Curve		Linear	Yes

NORMAL DISTRIBUTION

Concerned Statistic	Parameters		sample size	Normality			Normal
	Mean	Variance		Histogram	Box Plot	QQNorm	
Mean	0	1	2	Bell Curve	Symmetric	Linear	Yes
Median	0	1	2	Bell Curve	Symmetric	Linear	Yes
Standard Deviation	0	1	2	Positively Skewed	Unsymmetrical	Curve	No
			5	Almost Bell Shape	unsymmetrical	Slightly curve	No
			10	Bell Shape	Symmetric	Linear	Yes
Minimum	0	1	2	Bell Curve	Symmetric	Linear	Yes
Maximum	0	1	2	Bell Curve	Symmetric	Linear	Yes
IQR	0	1	5	Positively Skewed	Unsymmetrical	Linear	No
			10	Almost Bell Shape	unsymmetrical	Linear	No
			20	Bell Shape	Symmetric	Linear	Yes

GAMMA Distribution

Concerned Statistic	Parameters		sample size	Normality			Normal
	Alpha	Beta		Histogram	Box Plot	QQNorm	
Mean	0.001	1	50	Positive skewed	Unsymmetrical	Curve	No
			250	Positive skewed	Unsymmetrical	Curve	No
			500	Positive skewed	Unsymmetrical	Slightly curve	No
			1000	Bell Shaped	Symmetric	Linear	Yes
	2	1	10	Positive skewed	Unsymmetrical	Slightly curve	No
			50	Bell Shaped	Symmetric	Linear	Yes
	30	1	10	Positive skewed	Unsymmetrical	Slightly curve	No
			50	Bell Shaped	Symmetric	Linear	Yes
Median	0.001	1	Any Value of (n)	Not Bell Curve			Not Normal
	2	1	20	Positive skewed	Unsymmetrical	Slightly curve	No
	2	1	50	Bell Shaped	Symmetric	Linear	Yes
	30	1	20	Bell Shaped	Symmetric	Linear	Yes
Standard deviations	0.001	1	100	Positive skewed	Unsymmetrical	Slightly curve	No
			1000	Positive skewed	Unsymmetrical	Slightly curve	No
			10,000	Positive skewed	Unsymmetrical	Slightly curve	No
			50,000	Approaching Bell Curve		Linear	Yes
	2	1	50	Positive skewed	Unsymmetrical	Slightly curve	No
			100	Bell Shaped	Symmetric	Linear	Yes
	30	1	50	Bell Shaped	Symmetric	Linear	Yes
Minimum	0.001	1	Any Value of (n)	Not Bell Curve			Not Normal
	2	1	For n>20,000	Approaching Bell Curve	Unsymmetrical	Slightly curved	No
	30	1	For n>20,000	Not a Bell Curve	Unsymmetrical	Slightly curved	No
Maximum	0.001	1	For n>20,000	Not a Bell Curve	Unsymmetrical, many outliers	curved	No
	2	1	Even at n=30,000	Not a Bell Curve	Unsymmetrical, many outliers	curved	No
	30	1	Even at n=30,000	Not a Bell Curve	Unsymmetrical, many outliers	curved	No
IQR	0.001	1	Any Value of (n)	Not Bell Curve			Not Normal for any sample size
	2	1	100	Bell Shaped	Symmetric	Linear	Yes
	30	1	50	Bell Shaped	Symmetric	Linear	Yes