
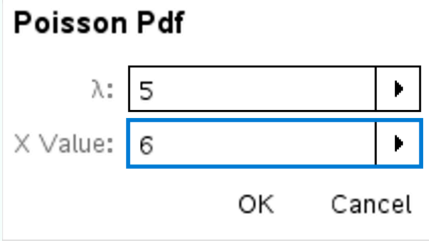


4.12 Poisson distribution

4.12.1 Compute $P(X = a)$

Consider $X \sim \text{Po}(5)$. Suppose you want to know $P(X = 6)$.

Press , select Probability > Distributions > Poisson Pdf and fill the parameters as follows:




Poisson Pdf

λ : 5


X Value: 6

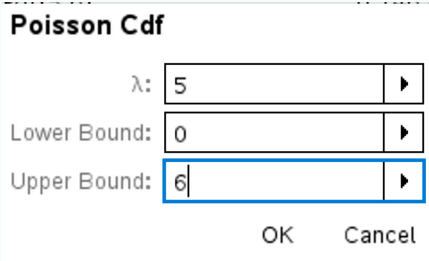
OK Cancel

Press . The result should be 0.146 (rounded).

4.12.2 Compute $P(X \leq a)$

Consider $X \sim \text{Po}(5)$. Suppose you want to know $P(X \leq 6)$.

Press , select Probability > Distributions > Poisson Cdf and fill the parameters as follows:




Poisson Cdf

λ : 5

Lower Bound: 0

Upper Bound: 6


OK Cancel

Press . The result should be 0.762 (rounded).

4.12.3 Graph a Poisson distribution

Consider $X \sim \text{Po}(5)$. Suppose you want to graph it.

① Create a new document and select Add Graphs.

② Press  and select Graph Entry/Edit > Sequence > Sequence. Enter the parameters as follows:

```

 {
  u1(n)=poissPdf(5,n)
  Initial Terms:=
  1≤n≤99 nstep=1
}
  
```

③ Choose a proper window :

Window Settings

XMin:

XMax:

XScale: ▶

YMin:

YMax:

YScale: ▶

④ Press . The following should be displayed:

