Probability Distributions

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Poisson Distribution

The Poisson distribution is defined for $x = 0, 1, 2, \ldots$

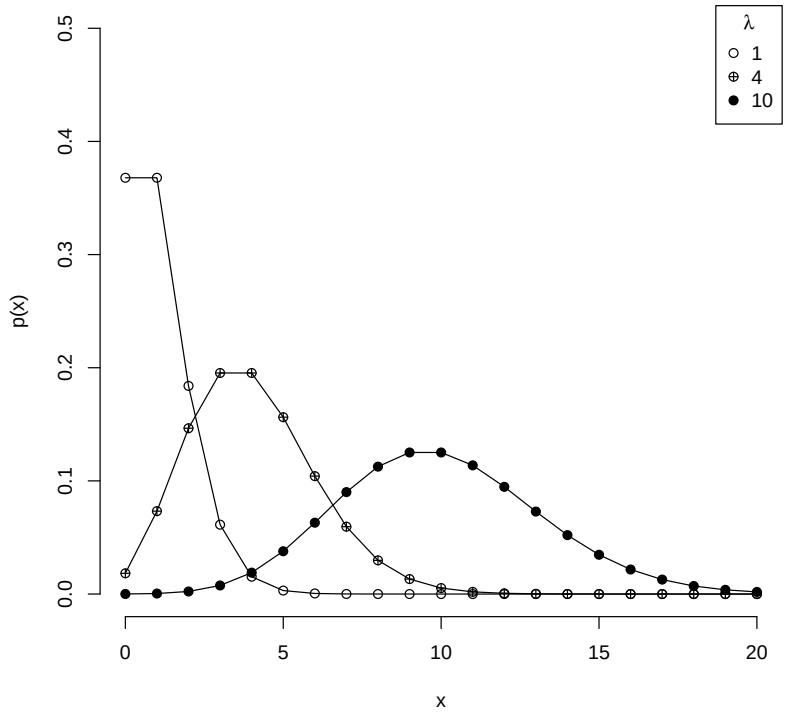

Figure 1: Poisson Distribution for Various λ

$x = 0, 1, 2, \ldots$

$0 < \lambda < \infty$

$p(x) = \dfrac{e^{-\lambda}\lambda^x}{x!}$

$\mu = E[X] = \lambda$

$\sigma^2 = E[(x - \mu)^2] = \lambda$