## Geometric distribution: $P(X = x) = (1 - p)^x p$



## Binomial distribution: $P(X = x) = {n \choose x} p^x (1-p)^{n-x}$



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Poisson distribution:  $P(X = x) = \frac{\lambda^x}{x!}e^{-\lambda}$ 



х

Uniform distribution:  $f(x) = \frac{1}{b-a}$ 



## Normal distribution: $f(x) = \frac{1}{\sigma\sqrt{2\pi}} \exp\left\{-\frac{1}{2\sigma^2} \left(x-\mu\right)^2\right\}$



Exponential distribution:  $f(x) = \lambda e^{-\lambda x}$ 



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х

## Gamma distribution: $f(x) = \frac{1}{\theta^k \Gamma(k)} x^{k-1} \exp(-x/\theta)$



х