

## Distributions From Chapter 5

Name	pdf	$\mu$	$\sigma^2$
Discrete Uniform , $f$	$\frac{1}{k}$	$\sum x_i \cdot \frac{1}{k}$	$\sum(x_i - \mu)^2 \cdot \frac{1}{k}$
Binomial $b$	$\binom{n}{x} \theta^x (1 - \theta)^{n-x}$	$n\theta$	$n\theta(1 - \theta)$
Negative Binomial , $b^*$	$\binom{x-1}{k-1} \theta^k (1 - \theta)^{x-k}$	$\frac{k}{\theta}$	$\frac{k}{\theta} \left( \frac{1}{\theta} - 1 \right)$
Hypergeometric $g$	$\frac{\binom{M}{x} \binom{N-M}{n-x}}{\binom{N}{n}}$	$n \frac{M}{N}$	$\frac{nM(N-M)(N-n)}{N^2(N-1)}$
Poisson $p$	$\frac{\lambda^x e^{-\lambda}}{x!}$	$\lambda$	$\lambda$

Not listed: Bernoulli and Geometric (they are special cases of?)

Also, note that the possible values of  $x$  and the parameters are not listed.