permutation: $p_r^n = \frac{n!}{(n-r)!}$
combination: $c_n^r = \binom{n}{r} = \frac{n!}{r!(n-r)!}$

expectation and variance
$def : E(X) = \mu$
$var(X) = \sigma^2$
$stdev(X) = \sqrt{var(X)}$
$dis : \mu = \frac{1}{n}\Sigma_{allx} xf(x)$
$cont : \mu = \int_{-\infty}^{\infty} xf(x)dx$