$$P(X=k) = {n \choose k} (p)^{k} (1-p)^{n-k}$$

- 1 rbinum (x, size, prob)

 Random values from

 Bin (n=size, p=prob)
- 2. pbinom (9, size, prob)

 Probability of observing

 k=9 successes OR less

 from Bin(n=size, p=prob)
 - 3. Abinom (p, size, prob)

 Number of successes

 from Bin (n=size, p=prob)

 to sum total probability

 to p

$N(\mu, \sigma^2)$

- 4. rnorm (n, mean, sd.)
 n Random values from
 N(mean, sd.)
 - 5. pnorm (q, mean, sd.)

 Probability of observing
 q or less on N(mean, sd2)
 - 6. gnorm (p, mean, sd)

Value on x-axis required to have total probability to the left be p