n : picking up ball from basket for n times

: probability of “picking up blue ball” at each one time of picking

K : binomial with parameters n,

: binomial random variable

→choose n times and observation a certain numerical value k for the random variable K

* Binomial trial

Has only two possible outcome in an experiment that is repeated multiple times

* Binomial distribution

Has only two possible outcome in an experiment that is repeated multiple times

K =

1. Likelihood Function

(k;)=

→probability of obtaining event 1 for n times experiment

= : probability of obtaining 2 blue ball in picking ball from basket 10 times

1. Maximum Likelihood Estimation

Find that maximize likelihood Function

2.1) put log operation

→need to maximize this expression with respect to

2.2) take derivation with respect to

1. K ~ B(10, )

K(binomial random variable) follow binomial distribution K ~ B(10, )