Discrete notes 05/21/18->Final

Permutation formula: order a set of n objects

P(3,3) = 3!/(3-3)!

Combinations: C(n,r)

After choosing an order, it becomes a permuation problem

C(n,r) -> P(r, r)

N!/(n-r)! \* r!

How many ways can we select a committee of three from 10?

C(10, 3)

10!/(7!) 8 3!

10 \* 9 \* 8 / 3 \* 2 \* 1

Poker hands

C(13,1) \* C(4, 3) \* C(12,1) \* c(4,2)

11!/(4! \* 2! \* 4)