

[10-10-14-T]
Counting combinations

[1] How many ways can 12 athletes be assigned to

(a) one double room, two triple rooms, and one quadruple room?

(b) if Dow and Jones want to room together?

[2] There are 5 men and 6 women. How many committees of 5 have

(a) at least one male and one female?

(b) exactly one male and one female?

[3] From a group of 5 men and 7 women,

(a) how many different committees, consisting of 2 men and 3 women can be formed?

(b) if two of the women cannot serve on the committee together?

[4] A student is to answer 7 out of 10 questions on an examination.

(a) How many choices does he have?

(b) How many if he must answer at least 3 of the first 5 questions?