

# Statistics Questions

1. In an IPL auction a team wants to buy a foreign player who is an all-rounder to balance their side. The team has the budget to spend on only one player and they are looking for a player who could help them in their batting department. The franchise now has the data with the runs scored by player A and player B in their last 20 matches and are confused on their selection

Who should the Franchise buy?

Player X	25,40,38,48,51,35,100,25,15,20,21,25,35,40,7,12,25,40,42,56
Player Y	0,25,22,38,25,45,51,60,62,93,68,63,42,9,3,5,20,14,18,37

2. What is the Coefficient of variation of X and Y?
3. A coin is tossed 10 times and below are the observations as follows – T H T H H T H H H T

What is the theoretical probability of obtaining head as success

4. Twenty four people had a blood test and the results are shown below.  
A , B , B , AB , AB , B , O , O , AB , O , B , A , AB , A , O , O , AB , O , O , A , AB , O , B , A

If a person is selected randomly from the group of twenty four people, what is the probability that his/her blood type is not O?

5. CSK winning IPL 2018 (0.8 probability)

SRH winning IPL 2018 (0.2 probability)

CSK winning Champions trophy 2018 (0.6 probability)

SRH winning Champions trophy 2018 (0.4 probability)

In the above events what are the mutually exclusive events?

6. Using the above data what is the probability of CSK winning IPL 2018 or CSK winning Champions trophy 2018

The Frequency for the defect less manufacturing of a product by a machine in a company was designed as - 955,15,9,8,6

But during manufacturing it was observed as - 925,25,15,9,5

The company wants to know is this difference significant or by chance? Perform Chi square test and prove the hypothesis.

## Statistics Questions

35. A study reported in the *Journal of Small Business Management* concluded that self-employed individuals do not experience higher job satisfaction than individuals who are not self-employed. In this study, job satisfaction is measured using 18 items, each of which is rated using a Likert-type scale with 1–5 response options ranging from strong agreement to strong disagreement. A higher score on this scale indicates a higher degree of job satisfaction. The sum of the ratings for the 18 items, ranging from 18–90, is used as the measure of job satisfaction. Suppose that this approach was used to measure the job satisfaction for lawyers, physical therapists, cabinetmakers, and systems analysts. The results obtained for a sample of 10 individuals from each profession follow.

Lawyer	Physical Therapist	Cabinetmaker	Systems Analyst
44	55	54	44
42	78	65	73
74	80	79	71
42	86	69	60
53	60	79	64
50	59	64	66
45	62	59	41
48	52	78	55
64	55	84	76
38	50	60	62

At the  $\alpha = .05$  level of significance, test for any difference in the job satisfaction among the four professions.

### Applications

3. During the first 13 weeks of the television season, the Saturday evening 8:00 P.M. to 9:00 P.M. audience proportions were recorded as ABC 29%, CBS 28%, NBC 25%, and independents 18%. A sample of 300 homes two weeks after a Saturday night schedule revision yielded the following viewing audience data: ABC 95 homes, CBS 70 homes, NBC 89 homes, and independents 46 homes. Test with  $\alpha = .05$  to determine whether the viewing audience proportions changed.