

RAM Maths Circle

September 14, 2025

Nagpur

What is Statistics?

Statistics is a branch of mathematics that involves collecting, organizing, analyzing, interpreting, and presenting data in order to understand information and make informed decisions. One important concept in statistics is the range, which is calculated by subtracting the smallest value in a data set from the largest.

In everyday life, we use statistics constantly—whether we are estimating expenses for groceries, reviewing health data, comparing school performance, or deciding the best route to take based on traffic patterns. By using data to reveal trends and patterns, statistics helps us make better choices, plan for the future, and solve problems more effectively.

Questions

Problem 1

Find the mean and the median of the marks of 100 students of a class, given in the following table.

Marks	0–5	5–10	10–15	15–20	20–25	25–30
Number of students	4	11	13	15	31	26

Problem 2

For the following distribution, calculate mean using all suitable methods which includes assumed mean and (if applicable) step deviation method.

Size of items	1–4	4–9	9–16	16–27
Frequency	6	12	26	20

Exploration

1) Will we get the same answer from each method in Question 2?

2) Which is the most suitable method and why?

