

Big tournament statistics for CBSE Class 10

CBSE Math Revision · CBSE Class 10 · Student sheet

Name _____

Class _____

Date _____

No calculator. Every answer works out exactly.

Starter (5 minutes)

1. Find the mean of 2, 4, 4, 5, 10.
2. Find the median of 3, 8, 1, 9, 4, 7.
3. Find the mode of 2, 3, 3, 5, 7, 3.
4. Two dice are thrown. Find the probability of a double.

Main activity (35 minutes)

Task A: Goals per match

Made-up goals in 40 matches: 0 goals in 4 matches, 1 in 9, 2 in 11, 3 in 8, 4 in 5, 5 in 2 and 6 in 1.

- a. Find the mean number of goals per match.
- b. Find the median number of goals.
- c. Find the mode.

Task B: Batting scores

Made-up runs scored by 40 batters: 0–20: 5, 20–40: 8, 40–60: 12, 60–80: 10, 80–100: 5.

- a. Find the mean score using the step-deviation method.
- b. Find the median score.
- c. Find the mode, and check the empirical relation $3 \text{ median} = \text{mode} + 2 \text{ mean}$.

Task C: Chance

Use the data above.

- a. A match is chosen at random from the 40. Find the probability that it had 3 or more goals.
- b. A batter is chosen at random. Find the probability that they scored 60 or more.
- c. Find the probability that a match chosen at random had no goals.

Extension

1. After 8 more matches, the mean number of goals over all 48 matches is 2.5. How many goals were scored in those 8 matches?
2. In the batting table, the frequency of the 80–100 class is changed from 5 to f , and the mean becomes 58.8. Find f .