Statistical investigations

6 questions | 9 marks

Equivalent correct methods earn the corresponding marks.

1. Which is statistical: What is $6+4$? or How many books did each pupil read last month? [1 mark]

It expects different answers from different pupils.

Answer: How many books did each pupil read last month?

2. Write a neutral question about preferred playground activities. [1 mark]

Do not suggest that one answer is better.

Answer: One example: Which playground activity do you prefer?

3. 15 of 25 class members answer because 10 are away. State one limit of the result. [1 mark]

Absent pupils may have different preferences.

Answer: It describes the 15 respondents, not necessarily the whole class.

4. Write one conclusion using numbers from the pet table. [2 marks]

Favourite-pet survey: one choice per student

Pet	Votes
Cat	5
Dog	7
Bird	3
Fish	5

$5 + 7 + 3 + 5 = 20$.

7 is the greatest category frequency.

Answer: Dogs were the most popular single choice, with 7 of 20 votes.

5. A favourite-colour survey is graphed for display. Should it list pupils' full names? [2 marks]

The question compares colour choices, not individuals.

Answer: No. Anonymous category totals are sufficient.

6. More birds are observed on Tuesday than Monday. Does this show Tuesdays always have more birds? [2 marks]

Weather, observation time and other conditions may differ.

Collect more comparable observations before making a wider claim.

Answer: No. Two observations do not show what happens every Tuesday.