Solutions

Marking: **M1** a correct method, **A1** the correct answer, **B1** an independent mark.

Each answer shows the steps, then the **result**.

2.1

primary research: collecting new data first-hand for a specific purpose, e.g. a survey; secondary research: using data already collected by others, e.g. government statistics

2.2

quantitative: numerical data that can be measured and analysed statistically; qualitative: opinions, attitudes and reasons, often from interviews or focus groups

2.3

advantage: detailed opinions and reasons, e.g. why people like the taste, which help improve the snack; disadvantage: small group may not represent the market / one strong member may influence others / costly to run

2.4

quota: a set number of people from each group is chosen by the researcher; advantage: quick and cheap, and makes sure each group is represented; random: every member of the population has an equal chance of being chosen; advantage: less bias, so results are more representative

2.5

mean $= 45 \div 7 \approx \mathbf{6.4}$; median: in order 4, 5, 6, 7, 7, 7, 9, so **7**; mode **7**; median or mode best, as the low rating of 4 pulls the mean down

3.1

(a) any two, explained: government or local population data on the number and age of people near the campus; market analyses of the fitness industry, e.g. average membership prices; data on competitors' gyms from their websites or media articles; the university's published student numbers

(b) award up to [10]: survey/questionnaire: reaches many people, gives quantitative data on willingness to join and price; but poorly written questions or low response rates reduce accuracy; focus group: detailed reasons, e.g. opening hours, classes students want; but small and costly; sampling: quota sampling of students and workers ensures both groups are included; random or stratified sampling would be more representative but needs a full list; convenience sampling on campus is cheap but biased; ethics: consent and data protection; judgement: e.g. a survey with quota sampling plus one focus group