Statistics 3   Solution Bank

Exercise 1C

1   Divide the population into groups according to given characteristics. The size of each group determines the proportion of the sample that should have that characteristic. The interviewer should assess which group people fall into, as part of the interview. Once a quota has been filled, no more people in that group are interviewed.

2   A similarity between quota sampling and stratified random sampling is that the population is divided according to the characteristics of the whole population (into strata for stratified sampling, and groups for quota sampling). A difference between quota sampling and stratified random sampling is that quota sampling is non-random.

3 a This sampling method is unlikely to reflect the characteristics of the whole population..

b He could survey people at different times of day.
He could survey people in other parts of the town, not just outside the kebab shop.

4 a Mean $= \dfrac{4+7+6+8+2}{5} = \dfrac{27}{5} = 5$ hours (to the nearest whole number)

b She has used opportunity sampling, which is unlikely to reflect the characteristics of the whole population of the town, and has used a very small sample, which is unlikely to be representative.

c Increase the number of people asked.
Ask people at different times and/or in different locations.