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## Problem Solving - Set B

### Bronze

- a) Simon used opportunity sampling
- b) Opportunity sampling is quick and easy to carry out
- c) Improvement 1 : Simon could increase the number of people he asks  
Improvement 2 : Simon could vary the time of day he asks people

### Silver

- a) Systematic sampling is an example of random sampling
- b) Advantage of opportunity sampling: It is quick and easy to carry out  
Disadvantage of opportunity sampling: It is not necessarily representative due to limited time or location
- c) Advantage of systematic sampling: It is likely to be representative of the students as a whole  
Disadvantage of systematic sampling: A sampling frame is required
- d) Corina should use systematic sampling. A sampling frame is likely to be available such as a register of students

### Gold

- a) It is in the middle of the day on a weekend, so more people are likely to be out shopping and the chosen location is central
- b) Suitable groups for Ishant's sample can include: male shoppers under 40, male shoppers 40 and over, female shoppers under 40, female shoppers 40 and over

- c) Ishant could use the electoral register to determine the size of each group as a proportion of the whole population, then assign the quotas as the same proportion of the whole sample.



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