1. Each person in a fitness club is going to get a free gift.
   Stan is going to order the gifts.

   Stan takes a sample of 50 people in the fitness club.
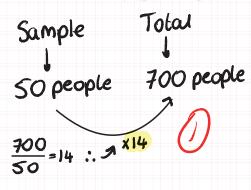   He asks each person to tell him the gift they would like.

   The table shows information about his results.

Gift	Number of people
sports bag	17
gym towel	7
headphones	11
voucher	15

   $17 \times 14 = 238$

   There are 700 people in the fitness club.

   (i) Work out how many sports bags Stan should order.

   Sample → 50 people   Total → 700 people

   $\frac{700}{50} = 14$ ∴ ↗ ×14   ✓

   238 ✓

   (2)

   (ii) Write down any assumption you made **and** explain how this could affect your answer.

   We've assumed the sample is representative ✓

   (1)

2.   Malik is going to throw a fair coin 50 times.

(a) Write down an estimate for the number of times the coin will land on heads.

$$P(H) = \frac{1}{2}$$

$$\frac{1}{2} \times 50 = 25$$

①

.... 25 ....

(1)

Paula and Simon are trying to find out if a different coin is biased.

Paula throws this coin 10 times.
She records the number of times the coin lands on heads.

Simon throws the same coin 100 times.
He records the number of times the coin lands on heads.

(b) Whose results will be more useful in deciding if the coin is biased?
Give a reason for your answer.

Simon, because 100 is more than 10.   ①

(1)

(Total for Question   is 2 marks)