

10 Jane conducted a survey. She chose a sample of people from three towns, A, B and C. She noted the following information.

- 400 people were chosen.
- 230 people were adults.
- 55 adults were from town A.
- 65 children were from town A.
- 35 children were from town B.
- 150 people were from town B.

(a) In the Printed Answer Booklet, complete the two-way frequency table. **[2]**

	Town			Total
	A	B	C	
adult				
child				
Total				

- (b)** One of the people is chosen at random.
- (i)** Find the probability that this person is an adult from town A. **[1]**
 - (ii)** Given that the person is from town A, find the probability that the person is an adult. **[1]**

For another survey, Jane wanted to choose a random sample from the 820 students living in a particular hostel. She numbered the students from 1 to 820 and then generated some random numbers on her calculator.

The random numbers were 0.114 287 562 and 0.081 859 817.

Jane’s friend Kareem used these figures to write down the following sample of five student numbers.

114, 142, 428, 287 and 756

Jane used the same figures to write down the following sample of five student numbers.

114, 287, 562, 81 and 817

- (c)**
- (i)** State, with a reason, which one of these samples is not random. **[1]**
 - (ii)** Explain why Jane omitted the number 859 from her sample. **[1]**