

## **S187 Two-way tables 2**

**Q1.**

60 people were asked if they prefer to go on holiday in Britain or in Spain or in Italy.

38 of the people were male.

11 of the 32 people who said Britain were female.

8 males said Italy.

12 people said Spain.

One of the females is chosen at random.

What is the probability that this female said Spain?

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**(Total for question = 4 marks)**

**Q2.**

On an activity day students play one sport.

They play football or hockey or tennis.

120 students are on the activity day.

30 of the students are boys.

12 of the boys and 26 of the girls play hockey.

45 of the students play football.

35 of the 45 students who play football are girls.

One of the girls is chosen at random. What is the probability that this girl plays tennis?

**(Total for Question is 4 marks)**

**Q3.**

66 people went on a day trip.  
Each person did only one activity on the trip.

Each person went skating or went to an art gallery or went bowling.

43 of the people are female.  
4 of the 10 people who went skating are male.  
20 of the people went to the art gallery.  
10 males went bowling.

One of the females is chosen at random. What is the probability that she went to the art gallery?

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**(Total for question = 4 marks)**

**Q4.**

There are 200 students at a college.

Each student studies one of Art, Graphics or Textiles.

Of the 116 female students, 26 study Graphics.

22 male students study Textiles.

A total of 130 students study Art.

The number of students who study Graphics is the same as the number of students who study Textiles.

One of the male students is chosen at random. What is the probability that he studies Art?

**(Total for Question is 4 marks)**

**Q5.**

A teacher asked 30 students if they had a school lunch or a packed lunch or if they went home for lunch.

17 of the students were boys.

4 of the boys had a packed lunch.

7 girls had a school lunch.

3 of the 5 students who went home were boys.

One of the boys is chosen at random. What is the probability that this boy had a packed lunch?

**(Total for Question is 4 marks)**

**Q6.**

50 people each did one activity at a sports centre.

Some of the people went swimming.

Some of the people played squash.

The rest of the people used the gym.

21 of the people were female.

6 of the 8 people who played squash were male.

18 of the people used the gym.

9 males went swimming.

One of the females is chosen at random. What is the probability that this female used the gym?

**(Total for Question is 4 marks)**

**Q7.**

120 children went on a school activities day.

Some children went bowling.

Some children went to the cinema.

The rest of the children went skating.

66 of these children were girls.

28 of the 66 girls went bowling.

36 children went to the cinema.

20 of the children who went to the cinema were girls.

15 boys went skating.

One of the children is chosen at random. What is the probability this child went bowling?

**(Total for Question is 4 marks)**

**Q8.**

People can buy three types of plane tickets.

They can buy

an Economy ticket  
a Premium ticket  
or a Business ticket

200 people buy plane tickets.

92 males buy tickets  
30 of the males buy Business tickets  
62 females buy Economy tickets

A total of 44 people buy Business tickets.

A total of 60 people buy Premium tickets.

One of the males is chosen at random. What is the probability that this male buys Premium tickets?

**(Total for question = 4 marks)**