

Name: \_\_\_\_\_

Exam Style Questions



# Two-way Tables

Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

## Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

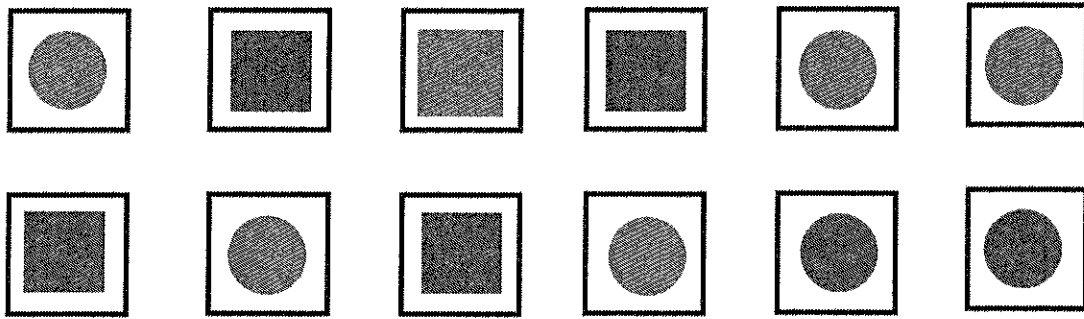
Revision for this topic

[www.corbettmaths.com/contents](http://www.corbettmaths.com/contents)

# Video 319



1. Below are 12 cards from a game.



(a) Complete this two-way table.

	Red	Green
Square	<del>1</del> 4	1
Circle	2	<del>1</del> 5

(2)

(b) One card is picked at random.  
What is the probability it is a green circle?

$$\frac{5}{12}$$

.....  
(1)

2. 80 students visited the library over three days.  
The two-way table shows some information about these students.

	Monday	Tuesday	Wednesday	Total
Female	7	18	13	38
Male	14	15	13	42
Total	21	33	26	80

- (a) Complete the two-way table.

(3)

One of these students is picked at random to win a prize.

- (b) Write down the probability that the student is a female.

$$\frac{38}{80}$$

$$\frac{19}{40}$$

.....  
(1)

- (c) Write down the probability that the student visited the library on Tuesday.

$$\frac{33}{80}$$

.....  
(1)

3. The two-way table shows the gender and hair colour of the students in a class.

		Hair colour			
		Brown	Blonde	Red	
Gender	Boy	3	6	3 ✓	12
	Girl	5 ✓	4 ✓	1 ✓	10
		8	10	4	

(a) Find the total number of students in the class.

$$3 + 6 + 3 + 5 + 4 + 1$$

$$\begin{array}{r} 22 \\ \hline \end{array} \quad (1)$$

(b) A student is chosen at random from the class.  
Find the probability that the student

(i) is a girl

$$\frac{10}{22}$$

$$\begin{array}{r} \frac{5}{11} \\ \hline \end{array} \quad (1)$$

(ii) has blonde hair

$$\frac{10}{22}$$

$$\begin{array}{r} \frac{5}{11} \\ \hline \end{array} \quad (1)$$

(iii) is a girl **or** has red hair

$$\begin{array}{r} \frac{13}{22} \\ \hline \end{array} \quad (1)$$

4. A cinema records some information about the visitors they have one weekend.

Day	Males	Females	Total
Saturday	97	115	212
Sunday	46	102	148
Total	143	217	360

Fill in all the missing values

(3)

- 
5. Kevin runs a market stall.  
The table below shows information about what items he has in stock.

	T-shirts	Jumpers	Coats	Total
Small	2	36	28	66
Medium	9	0	1	10
Large	58	51	15	124
Total	69	87	44	200

Complete the two-way table.

(3)

6. 90 people sit their driving tests over one week.

	Under 20 driving lessons	20 or over driving lessons	total
Pass	9	21	30
Fail	45	15	60
total	54	36	90

(a) Complete the two-way table.

(2)

(b) How many people who had 20 or over driving lessons failed their driving test?

15  
.....  
(1)

(c) What fraction of people failed their driving test?  
Give your fraction in its simplest form.

$\frac{60}{90}$

$\frac{2}{3}$   
.....  
(2)

Alan says "having 20 or over driving lessons helps a person pass their driving test."

(d) Explain why Alan is correct.

With under 20 lesson,  $\frac{1}{6}$  of people passed  
 With 20 or over lessons,  $\frac{7}{12}$  of people passed

(2)

7. The two-way table gives some information about the football teams 50 students support.

	Rovers	City	United	Total
female	11	12	3	26
male	9	8	7	24
Total	20	20	10	50

Complete the two-way table.

(3)

8. The two-way table shows the grades students in Year 10 received in their exams.

		Physics			
		A	B	C	D
Maths	A	7	6	1	1
	B	3	5	3	0
	C	4	2	6	3
	D	0	0	1	0

- (a) How many students are in Year 10?

42  
.....  
(2)

- (b) How many students received a B in maths?

11  
.....  
(2)

- (c) How many students received the same grade in maths and physics?

$$7 + 5 + 6$$

18  
.....  
(2)

- (d) How many students received a higher grade in physics than maths?

10  
.....  
(2)



9. 150 students visit a school canteen.

Some students have packed lunches.

Some students have a cooked lunch.

56 out of the 89 students who have packed lunch are female.

There are 72 boys.

Work out how many females have a cooked lunch.

	male	female	total
packed lunch	33	56	89
cooked lunch	39	<u>22</u>	61
total	72	78	150

22

(3)

10. 100 people study one language at a college.

Some people study French.

Some people study Spanish.

The rest of the people study German.

54 of the people are male.

20 of the 29 people who study Spanish are female.

31 people study German.

15 females study French.

Work out the number of males who study German.

	male	female	total
French	25	15	40
Spanish	9	20	29
German	<u>20</u>	11	31
total	54	46	100

20

(4)

11. On a particular day, 98 adults visit a leisure centre.

Some are going to the gym.  
 Some are going to play tennis.  
 Some are going to play badminton.  
 The rest are going swimming.

51 people are male.  
 21 out of the 40 going to the gym are male.  
 19 males and 7 females are going swimming.  
 7 out of the 20 people playing badminton are male.  
 Twice as many females play tennis than males.

How many women play tennis?

	male	female	total
gym	21	19	40
tennis	4	8	12
badminton	7	13	20
Swimming	19	7	26
total	51	47	98

8

(2)

12. There are 40 children at a youth club.

There are 23 girls.

9 girls play rounders.

4 boys do not play rounders.

How many boys play rounders at the youth club?

	boys	girls	total
play rounders	<u>13</u>	9	22
do not play rounders	4	14	18
total	17	23	40

13

.....  
(2)