

Two way tables – www.m4ths.com

(1) The two way table below shows information about the people in an office.

	Right Handed	Left handed	Total
Women	22	4	
Men	18	6	
Total			

- Complete the two way table.
- Write down the number of left handed men.
- What % of the people in the office are left handed?
- What fraction of the people in the office are men?
- One person is chosen at random. What is the probability they are a left handed man?

(2) There are 100 people in an office. The two way table below shows information about people in an office.

	Blonde	Brunette	Total
Right Handed	21		60
Left Handed			
Total		51	

- Complete the two way table.
- What % of the people in the office are Blonde?
- One person is chosen at random. Find the probability that they are: (i) Right Handed (ii) Left Handed (iii) Blonde (iv) not Blonde (v) Right Handed and Brunette
- 20 Right handed people leave the office. What proportion of the people **left** in the office Left Handed?

(3) There are 200 students in Year 10. The two way table shows some information about them below.

	Maths	English	Science	Total
Band A	20		12	
Band B	9	25		
Band C	44			
Total		59		

There are 100 students in Band C and half as many in band B.

- Complete the two way table.
- How many students in band A studied English?
- How many students studied Science?
- One person is chosen at random. Find the probability that they were in Band C **and** studied English.

(4) There are 80 people at a school. $\frac{1}{4}$ are boys. Half of the students study French and the rest study German. Only 8 boys study German.

(a) Use the template below to create a two way table.

- Find the number of girls that study German.
- What % of the students are boys studying French?
- Find the modal group from the two way table.
- What proportion of the students in the school are girls studying French?
- How many students didn't study French who were boys?

(5) The two way table below shows some information about a sports club. There are 100 members in the club.

	Tennis	Swim	Gym	Bowls	Total
Child		16	1	0	25
Adult	30	12		5	
OAP		1	0		
Total	41		9		

- Complete the two way table.
- One person is chosen at random. Find the probability they are: (i) An OAP (ii) An Adult (iii) Not a Child.
- What fraction of the people at the club are Adult Gym users?
- What % of the people in the club are NOT OAPs who play bowls?
- What proportion of the OAPs play tennis?

(6) There are 20 people in a Poker Club. The two way table shows information about them below.

	Good Players	Bad Players	Total
Men	$3x$	$4x$	
Women	x	$2x$	
Total			

- Find the value of x .
- Complete the two way table below using your value of x .

	Good Players	Bad Players	Total
Men			
Women			
Total			

- Find the proportion of people in the club who are good players.
- One person is chosen at random. Find the probability they are: (i) A Bad Player (ii) Male (ii) A Female who is a good player.

(7) The two way table below shows information about students at a school.

	Maths	Science	English	Total
Boys	$2x$	$2x + 2$	$3x$	37
Girls	8		$4x$	
Total				79

(a) Complete the two way table below using the information above.

	Maths	Science	English	Total
Boys				
Girls				
Total				

- One student is chosen at random. Find the probability that they are: (i) A Girl (ii) A Scientist (iii) A Boy doing Maths (iv) A Girl **not** doing English.
- What % of the students do English? Give your answer to the nearest 1%.
- How many students don't do Maths?
- What fraction of the students are Boys not doing Maths?

(8) Design a two way table to test your friend. Make it tough BUT possible to solve. *You might find it easier to work backwards from a completed two way table.*