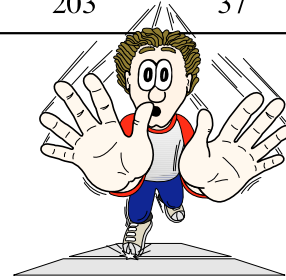# Two Way Tables.

1). Keith does a survey at his school.
All the pupils take part in the survey.
He draws this two way table.

	Right handed	Left handed
Girls	188	32
Boys	203	37

 a). What two questions do you
 think he has asked ?
 b). How many pupils are there in the school ?
 c). How many pupils in the school are left handed ?
 d). How many boys are in the school ?
 e). What percentage of the school is right handed ?
 f). What percentage of the girls is left handed ?

2). A survey is conducted in a town centre.
The two way table shows the results.

	Musical Preference	
	Pop	Classical
30 and over	64	48
Under 30	84	14

 a). What two questions do you
 think have been asked ?
 b). How many people took part in the survey ?
 c). How many people in the survey where 30 and over ?
 d). How many people in the survey preferred classical music ?
 e). What is the ratio of people who prefer pop to classical in
 i). the 30 and over range, ii). the under 30 range, iii). in the survey ?
 f). What percentage of the Under 30's surveyed prefers pop ?

3). Pupils in a Biology lesson classified the year
group by hair colour and eye colour. The
results were put in the table shown.

	Blue eyes	Not blue eyes
Fair hair	32	3
Not fair hair	67	93

 a). How many people were classified in total ?
 b). How many people have fair hair ?
 c). If some one from the year group is chosen at random what is the probability they
 don't have fair hair ?
 d). What percentage of the year group have
 i). fair hair **and** blue eyes, ii). Not fair hair and blue eyes ?
 e). A person with fair hair is chosen at random.
 What is the probability that they **don't** have blue eyes ?
 f). What is the ratio of blue eyes to not blue eyes for the year group ?

4). A shoe shop records sales for the week.
It divides the shoes into the 3 styles, fashion
shoes, traditional shoes and trainers.

	Style		
	Fashion	Traditional	Trainers
Children's	61	14	86
Adult's	19	54	26

 a). How may sales were made in the week
 for the given table ?
 b). How many fashion sales were made in the week ?
 c). What fraction of total sales were
 i). traditional shoes, ii). trainers ?
 d). What fraction of sales to children were traditional style shoes ?
 e). What percentage of sales to adults were traditional style shoes ?
 f). What is the ratio children to adults for sales of trainers?

5). At a supermarket shoppers are asked about the main reason for choosing that supermarket. The table shows the results.

| | Reason | | |
	Cheap	Near home	Product range
Female	92	72	24
Male	76	93	3

a). How many female shoppers took part in the survey ?

b). One of the respondents in the survey was chosen at random. What is the probability it was a male ?

c). How many in the survey chose the supermarket because it was near their home ?

d). What fraction of those who chose the supermarket because it was near their home were female ?

e). What fraction of those who chose the supermarket because it was cheap were male ?

f). A female shopper from the survey is chosen at random. What is the probability she chose the supermarket because of its product range ?

g). What percentage of the respondents were male and chose the shop because it was cheap ?

6). In a Biology project data is collected on pupils and parents to see whether they can roll their tongue. The data is shown in the table below.

	Both parents can roll tongue	One parent can roll tongue	Neither parent can roll tongue
Pupil can roll tongue	94	54	0
Pupil **can't** roll tongue	10	28	14
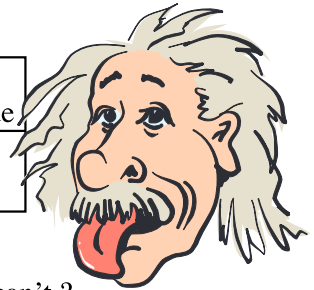
a). How many pupils can roll their tongues ?

b). What is the ratio of pupils who can roll their tongues to those that can't ?

c). One pupil is chosen at random, what is the probability he/she can roll his/her tongue ?

d). If both parents **can** roll their tongue what is the probability that their child **can't** roll his/her tongue ?

e). A pupil who can roll his/her tongue is chosen at random. What is the probability that only one of his/her parents can roll his/her tongue ?

f). If neither parent can roll their tongue what is the probability their child will be able to roll their tongue ?

g). Collect similar data for your class. Analyse it. Write a presentation of your findings.

7). 200 people are chosen at random and asked their age and holiday arrangements for last year. The table shows the results.

	Hotel	Self-catering	Camping	No holiday	Other
Under 25	16	62	15	13	2
25 and over	38	43	4	6	1

a). How many people went camping ?

b). How many people Under 25 took part in the survey ?

c). What is the ratio of Under 25's to 25 and Over who took part in the survey ?

d). A person aged Under 25 is chosen at random. What is the probability he/she had a hotel holiday last year ?

e). A person aged 25 or over is chosen at random. What is the probability he/she had a holiday last year ?

f). What percentage of those who went self catering were 25 and over ?

g). Collect similar data for your class. Analyse it. Write a presentation of your findings.

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