

2 Way Tables

Q1 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.

check all the rows add to correct total
 check columns totals too!
 $9 + 21 = 30 \checkmark$ (2)
 $21 + 15 = 36 \checkmark$

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

$$\begin{array}{r} 15 \\ \hline \end{array} \quad (1)$$

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

Failed 60 out of 90 total
 $\frac{60}{90} = \frac{2}{3}$

$$\begin{array}{r} \frac{2}{3} \\ \hline \end{array} \quad (2)$$

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

(d) Explain why Alfie is correct.

Under 20 lessons	{	20+ lessons
9 out of 54 passed	{	21 out of 36 passed
$\frac{9}{54} \approx 17\%$	{	$58\% \approx \frac{21}{36}$

Pass rate 58% is (2)
 much higher for 20+ lessons

Q2

An electronics factory checks how many laptops & how many desktops have faults.

	OK	Fault	Total
Laptop	63	△ 4	67
Desktop	58	3	○ 61
Total	121	7	128

1. How many laptops had a fault?
2. How many desktops were checked?

1. Faulty laptops △ Answer 4

2. Desktops checked ○ Answer 61

Q3

Danesh recorded the health of trees in two areas.

	Urban	Rural	Total
Healthy	21	14	35
Unhealthy	7	3	10
Total	28	17	45

1. What fraction of the trees were healthy?
2. What percentage of the trees in the urban area were unhealthy?

1. Healthy Trees 35 out of 45

$$\frac{35}{45} = \frac{7}{9} \quad \text{Ans } \frac{7}{9}$$

2. Urban trees 28

Unhealthy urban trees 7

$$\frac{7}{28} = 0.25 \quad \text{Ans } 25\%$$

Ella manages a cafe.

Q4

One morning, she sells the following drinks

41 large coffees

4 regular hot chocolates

28 large teas

A total of 9 hot chocolates

A total of 61 coffees

A total of 79 regular drinks

Complete the two-way table below.

	Regular	Large	Total
Coffee	20	41	61
Tea	55	28	83
Hot Chocolate	4	5	9
Total	79	74	153

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

Q5

		Physics				Total
		A	B	C	D	
Maths	A	7	6	1	1	15
	B	3	5	3	0	11
	C	4	2	6	3	15
	D	0	0	1	0	1
Total		14	13	11	4	42

(a) How many students are in Year 10?

$$\begin{array}{r} 42 \\ \hline \end{array} \quad (2)$$

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

Grade B row

$$\begin{array}{r} 11 \\ \hline \end{array} \quad (2)$$

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

△ in table

$$7 + 5 + 6 + 0$$

$$\begin{array}{r} 18 \\ \hline \end{array} \quad (2)$$

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

Higher in Physics than maths
○ circled in table

$$\begin{array}{r} 10 \\ \hline \end{array} \quad (2)$$

$$\begin{array}{r} 3 \\ 4 \ 2 \\ 0 \ 0 \ 1 \end{array}$$

$$\text{Total} = 10$$