

1. In a school's meal deal a drink is included.

This table gives some information about which drink 120 people chose.

	Fizzy	Juice	Water
Girls	18	39	11
Boys	22	7	4
Teachers	3	5	11

One of the people is chosen at random.

Write down the probability that the person was a boy who chose juice.

2. This table gives some information about 50 tickets sold at the cinema.

	Comedy	Action	Horror
Under 18	8	15	11
Adult	4	3	1
Concession	3	5	0

One of the tickets is chosen at random.

Write down the probability that the ticket was for a comedy film.

3. Each customer who signs up on-line for a spa day can choose a free treatment.

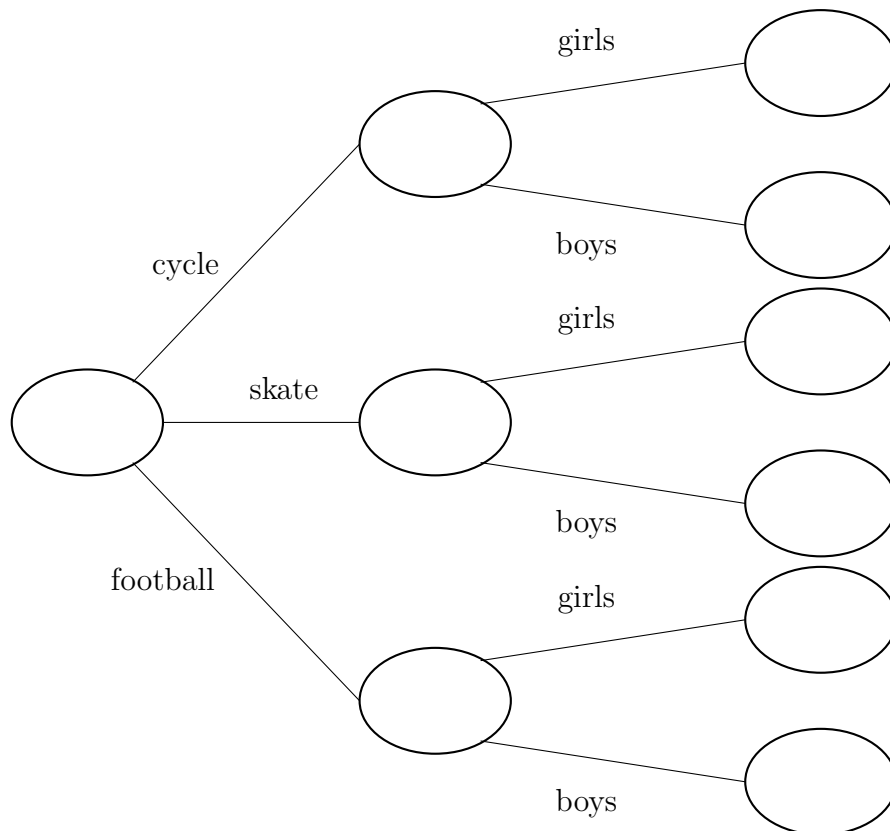
The table shows the probability that a customer will chose a facial or a head massage or a pedicure.

Free treatment	facial	head massage	pedicure	reflexology
Probability	0.43	0.18	0.3	

Work out the probability that a customer will choose a free reflexology treatment.

4. 240 students have a choice between cycling, skating or football on a activity afternoon.
 132 students choose skating.
 52 students choose football.
 39 boys choose to cycle.
 46 boys choose to skate
 3 girls choose to play football.

(a) Use this information to complete the frequency tree. {Other tree shapes, strand 6}



One of the students is chosen at random.

- (b) Work out the probability of that this student is a boy.
5. (a) 240 students are asked about their language options and their holidays last year.
 9 students study French but did **not** holiday in France.
 202 of the students do **not** study French.
 46 of the students holiday in France.

Use this information to complete the table below.

	holiday in France	not in France	Total
study French			
do not study French			
Total			240

5. (b) A school gives all year 8 some extra lessons.

Here is some information about the extra lessons in this two-way table.

	Extra english	Extra maths	Extra language	Total
Girls	16	21		
Boys			47	
Total	48		96	180

(i) Complete the two-way table.

(ii) Write down the probability that he takes extra maths as his extra lesson.

6. (a) Year 8 must study one of extra English, extra maths or a second language.

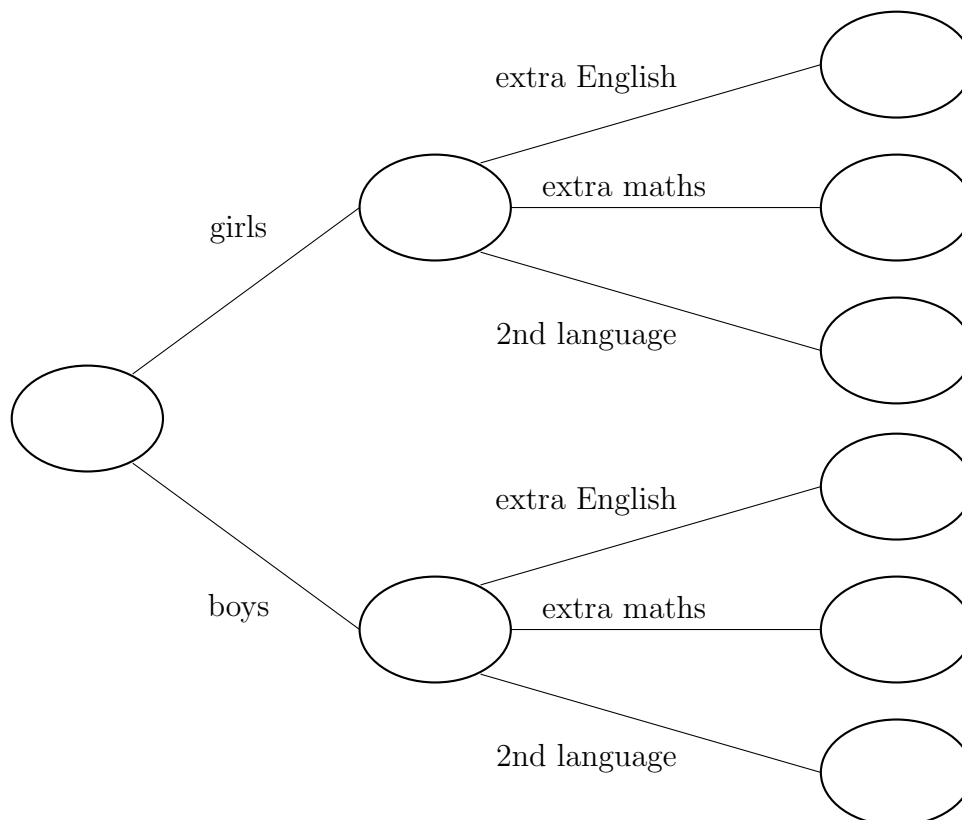
22 year 8 girls study extra maths.

123 boys are in year 8.

81 of 158 year 8 students who study a second language are boys.

18 of the 45 year 8 students who study extra english are girls.

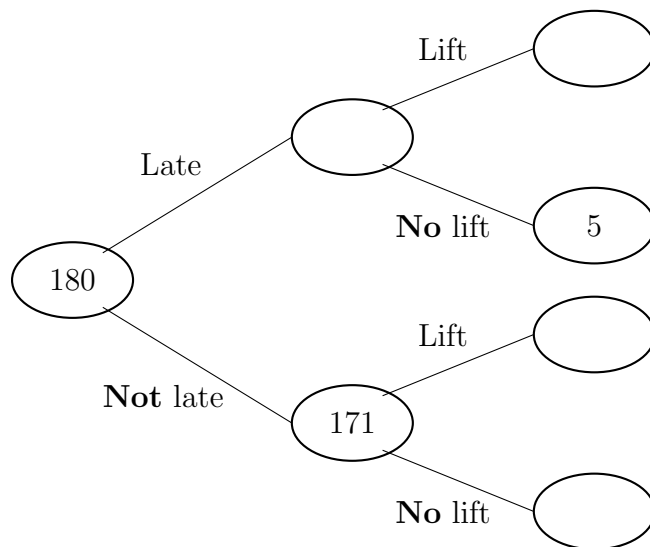
Use this information to complete the frequency tree.



6. (b) Here is an incomplete frequency tree about journeys to school.

46 students had a lift to school.

Use this information to complete the frequency tree.



7. {Word problem which is easy to solve by creating a two-way entry table}

There are 100 adults completing a survey about their last holiday.

They each have to say their **main** form of travel.

The choices are road or rail or air.

52 of the adults are women.

7 men travelled by rail.

16 out of the 34 who travelled by air are men.

53 travelled by road.

How many of the women's main form of travel was by road?

8. (a) The sides of a biased dice are labelled 1, 2, 3, 4, 5 and 6.

The probability that the dice will land on each numbers is given in the table.

Number	1	2	3	4	5	6
Probability	0.1	0.15	0.15	0.15	0.15	0.3

Don is going to spin the spinner 400 times.

Work out an estimate for the number of times the spinner will land on a number **more** than 4.

- (b) There are 1200 counters in a bag.

The counters are yellow or blue or red or green or white.

The table shows the probability that a counter take at random from the bag will be yellow, blue, red, green or white.

Colour	yellow	blue	red	green	white
Probability	0.24	0.31	0.2	0.1	0.15

Work out the number of red counters in the bag.