

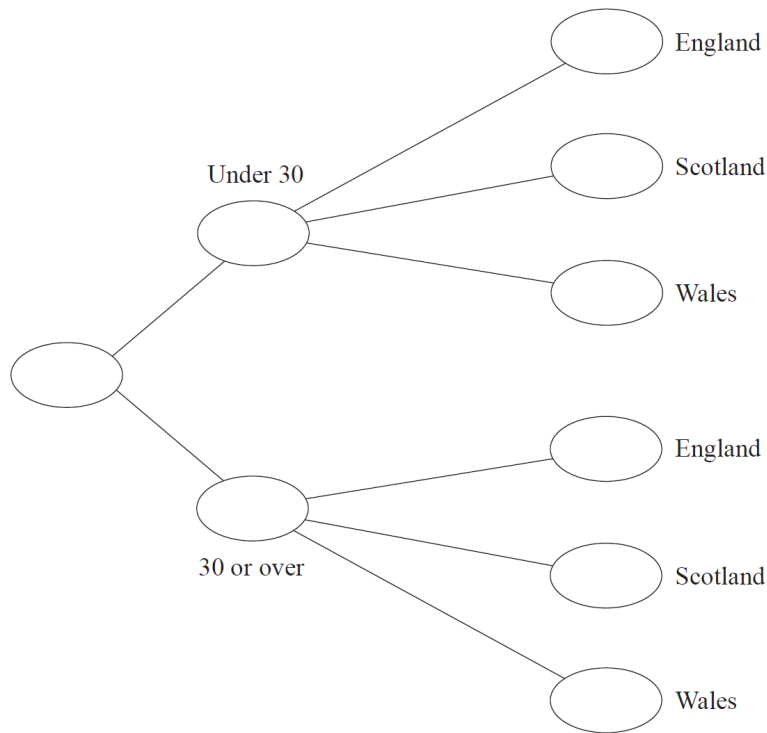
Janet collected data on holiday destinations for some people from Northern Ireland in July 2021

She grouped the results by the age of each respondent.

The table below shows her results.

Holiday destination	Age (years)	
	Under 30	30 or over
England	26	34
Scotland	19	33
Wales	40	53

(a) Use the information in the two-way table to complete the frequency tree below.



[3]

(b) Using the data opposite, calculate the probability that a person, chosen at random,

(i) was under 30 years old and went on holiday to Scotland;

Answer _____ [2]

(ii) went on holiday to England.

Answer _____ [2]

One person aged under 30 years old was selected at random.

(c) What is the probability that this person did not go on holiday to Wales?

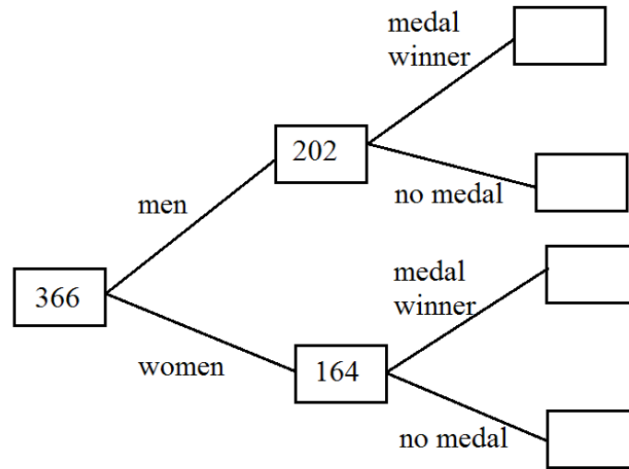
Answer _____ [2]

Q1

Frequency Trees

Q2

The partially completed frequency tree below shows data about the Great Britain and Northern Ireland team (Team GB) at the Rio 2016 Olympics. There were 366 competitors in the team.



Adapted from <http://www.bbc.co.uk/sport/olympics/37132833>

- (a) 71 men and 59 women from Team GB won medals.

Complete the empty boxes in the frequency tree.

[2]

- (b) A man is chosen at random from Team GB.

What is the probability that he is a medal winner? Give your answer as a percentage to the nearest whole number.

Answer _____ [2]

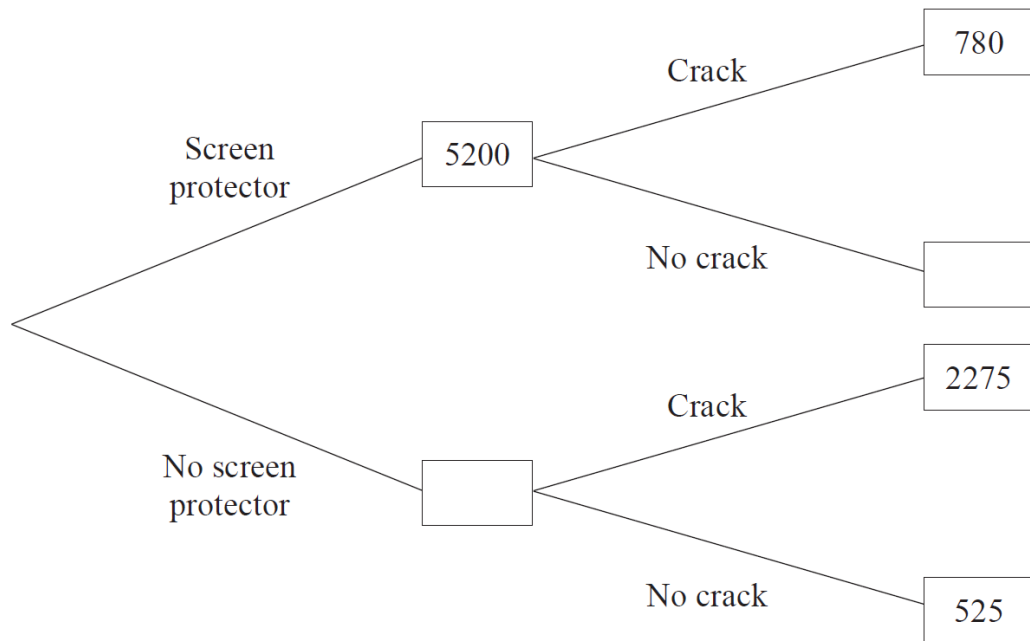
- (c) A medal winner is chosen at random for Team GB.

What is the probability that the medal winner is a woman? Give your answer as a percentage to the nearest whole number.

Answer _____ [3]

Q3

- 8 The frequency tree diagram below shows the number of mobile phone owners in a small town who applied a screen protector to their phone and whether their screen had cracked after one year.



- (a) Complete the missing frequencies in the tree diagram. [2]

A mobile phone owner from the town is chosen at random.

- (b) Calculate the probability that this owner applied a screen protector and their screen had not cracked.

Answer _____ [2]

Q4

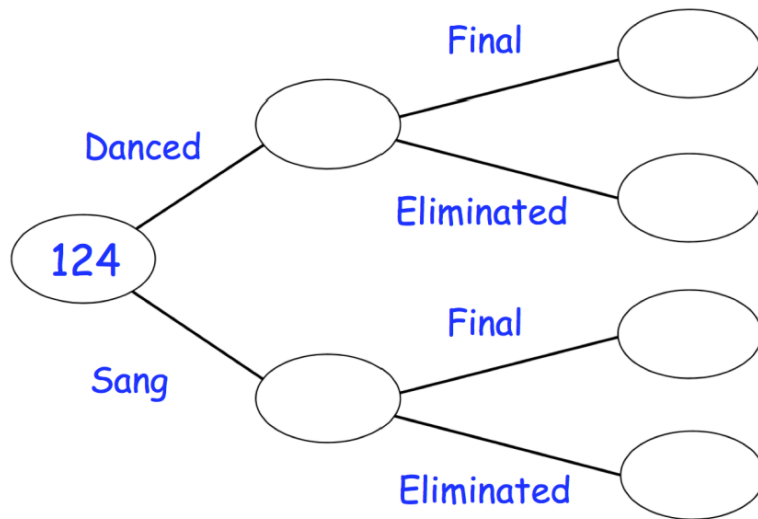
124 people took part in a talent show.
Each person either sang or danced.

76 of the people were singers.

14 people made it through to the final and the rest were eliminated.

6 dancers made it through to the final.

Complete the frequency tree



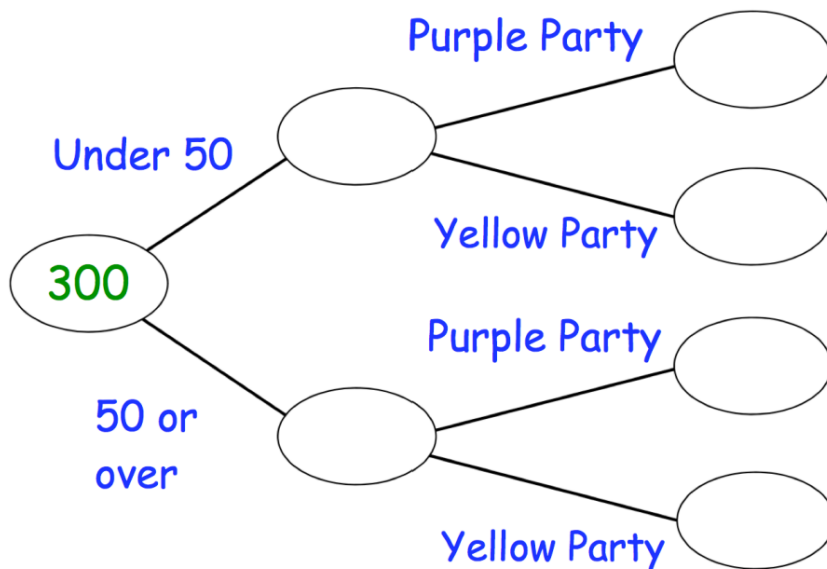
Q5

Corinne asked 300 people if they were more likely to vote for the Purple Party or the Yellow Party.

195 people were 50 years or over and the rest were under 50 years old.

$\frac{2}{3}$ of the people under 50 years old would vote for the Purple Party.

$\frac{3}{5}$ of the people who were 50 year or over would vote for the Yellow Party.



Which party did most people say that they were mostly likely to vote for?