

Frequency Trees

For AQA GCSE Mathematics (8300) • Foundation tier

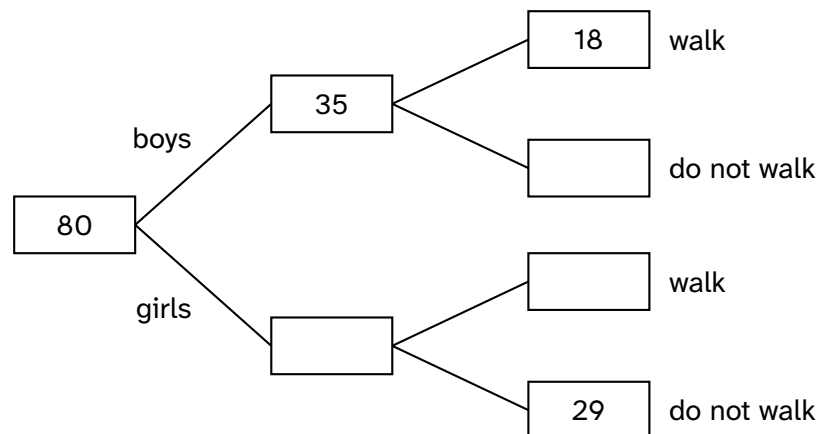
Name _____

Total marks: **31**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 80 students were asked if they walk to school.

(a) Complete the frequency tree.



[2 marks]

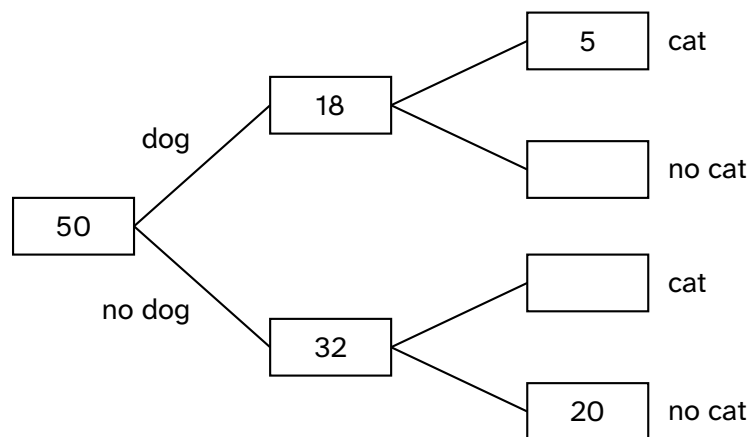
(b) One of the students is picked at random.
Work out the probability that the student walks to school.

[2 marks]

Answer _____

2 50 people were asked if they have a dog and if they have a cat.

(a) Complete the frequency tree.



[2 marks]

(b) How many of the people have a cat?

[1 mark]

Answer _____

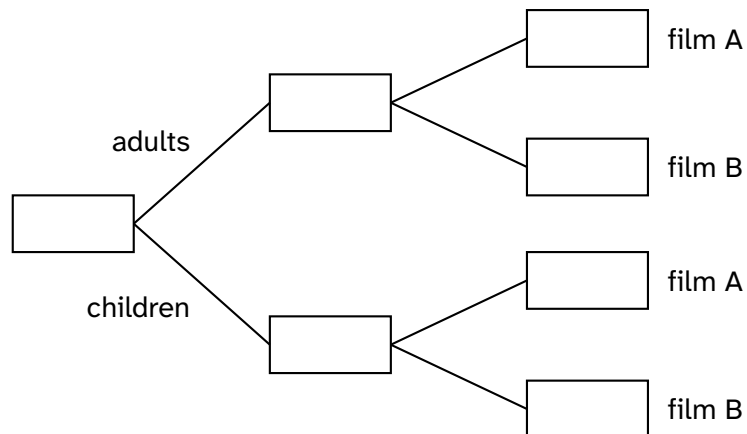
(c) One of the people is picked at random.
Write down the probability that they have a dog **and** a cat.

[1 mark]

Answer _____

- 3** 120 people are at a cinema.
70 of the people are adults.
 $\frac{4}{7}$ of the adults watch film B. The others watch film A.
30 of the children watch film B. The others watch film A.

(a) Use this information to complete the frequency tree.



[3 marks]

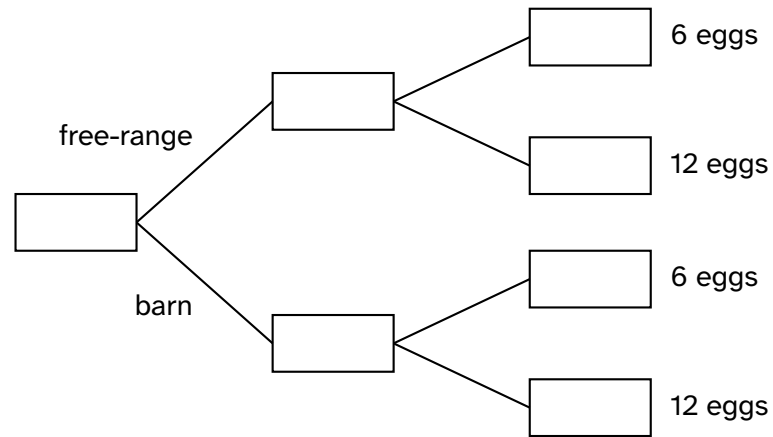
(b) What fraction of the people who watched film A were children?

[1 mark]

Answer _____

- 4 A farm shop sold 300 boxes of eggs in one week.
Each box was free-range or barn, and held 6 eggs or 12 eggs.
60% of the boxes were free-range.
 $\frac{2}{3}$ of the free-range boxes held 6 eggs.
45 of the barn boxes held 12 eggs.

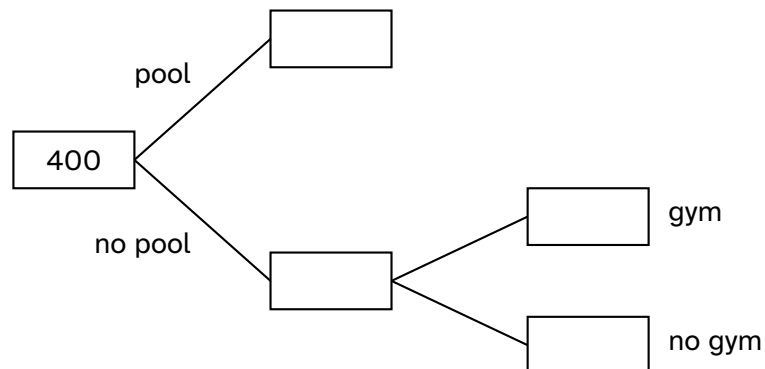
Complete the frequency tree.



[5 marks]

- 5 400 people visited a leisure centre one day.
35% of the people used the pool.
 $\frac{3}{4}$ of the people who did not use the pool used the gym.

(a) Complete the frequency tree.



[4 marks]

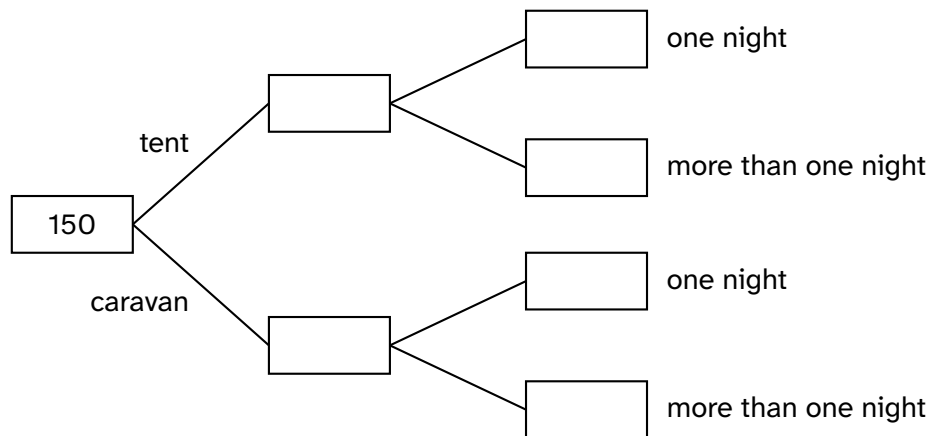
- (b) What fraction of the 400 people used neither the pool nor the gym?
Give your answer in its simplest form.

[2 marks]

Answer _____

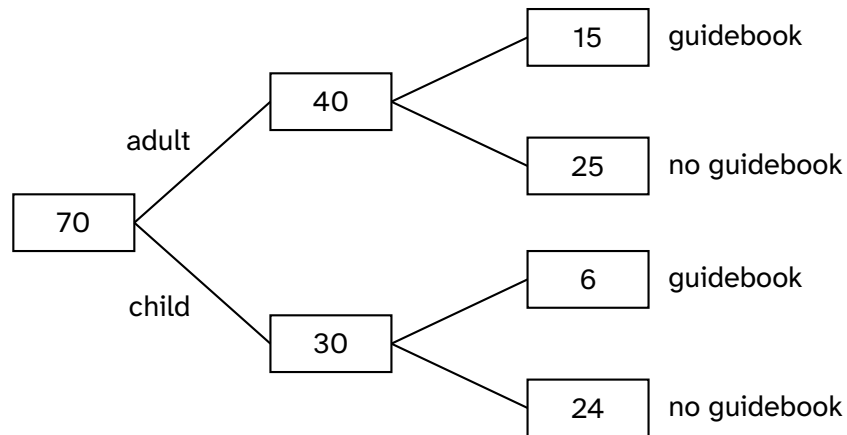
- 6 There are 150 visitors at a campsite.
Each visitor is staying in a tent or in a caravan.
The ratio of visitors in tents to visitors in caravans is 3:2
72 of the visitors are staying for more than one night.
 $\frac{1}{3}$ of the visitors in caravans are staying for one night.

Complete the frequency tree.



[4 marks]

- 7 A museum sells adult tickets at £12 each and child tickets at £7 each. Visitors can also buy a guidebook. Every guidebook is the same price. The frequency tree shows the tickets and guidebooks sold one morning.



The museum took £774 in total for tickets and guidebooks that morning. Work out the price of one guidebook.

[4 marks]

Answer £ _____