1 A sports team played 40 games.

Half were home games and half were away games.

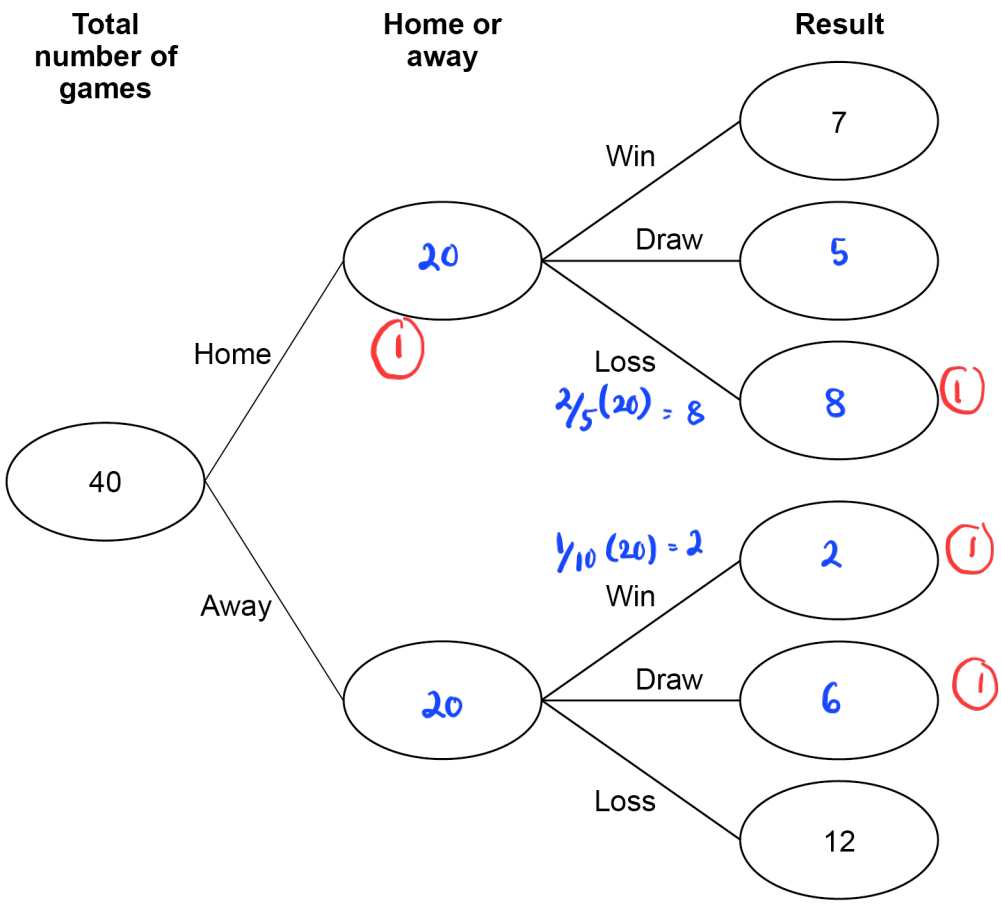
Each game was a win, a draw or a loss.

Of the **home** games, $\frac{2}{5}$ were losses.

Of the **away** games, $\frac{1}{10}$ were wins.

1 (a) Complete the frequency tree.

[4 marks]



1 (b) The team gets

6 points for a win

3 points for a draw

0 points for a loss.

Work out the **total** number of points that the team got.

[2 marks]

win = 7 + 2 = 9

draw = 5 + 6 = 11

loss = 8 + 12 = 20

Total points = (9 × 6) + (3 × 11)

= 54 + 33 (1)

= 87 (1)

Answer 87

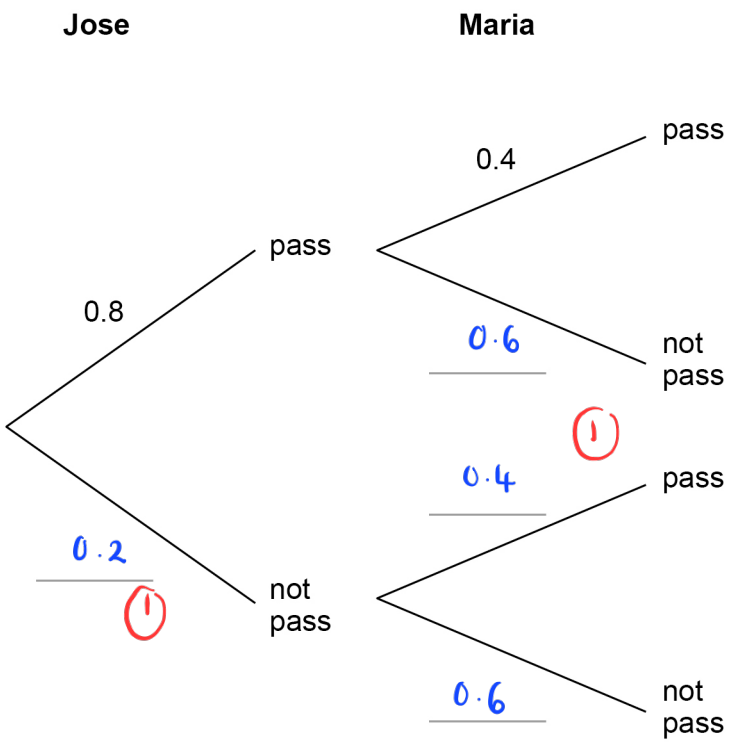
2 Jose and Maria each take a test.

The probability that Jose passes is 0.8

The probability that Maria passes is 0.4

2 (a) Complete the tree diagram.

[2 marks]



2 (b) Work out the probability that they **both** pass.

[1 mark]

$0.8 \times 0.4 = 0.32$

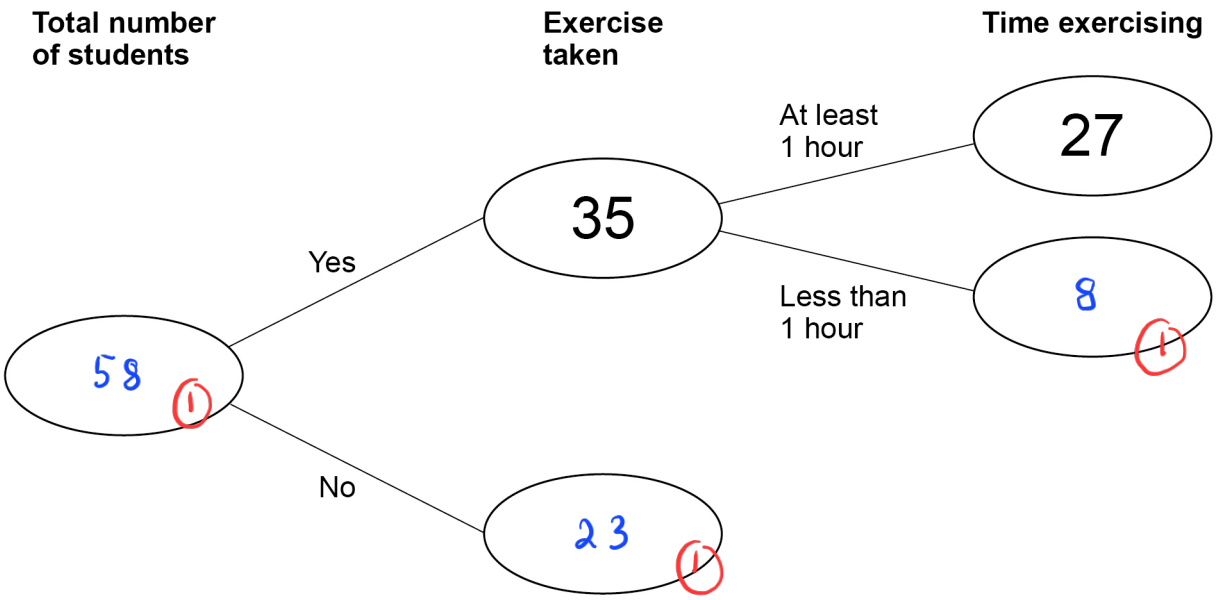
Answer 0.32 (1)

3 Some students were asked about their daily exercise.

3 (a) 12 **more** students answered Yes than answered No.

Complete the frequency tree.

[3 marks]



3 (b) One of the 35 students who answered Yes is chosen at random.

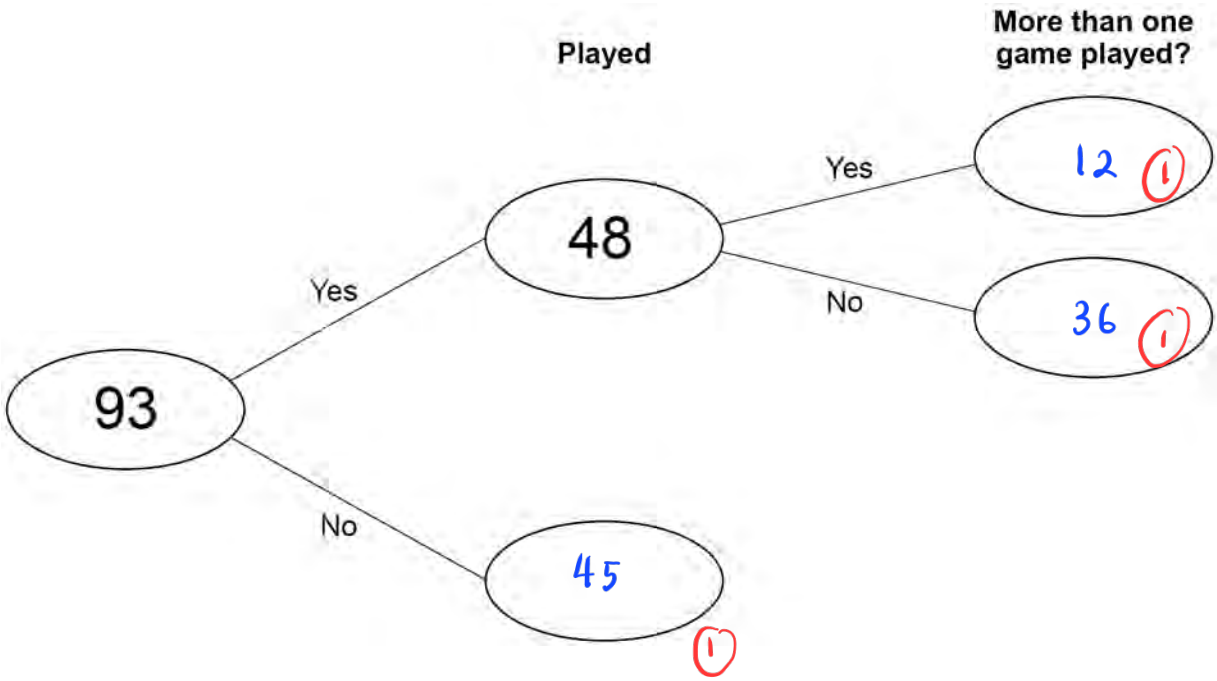
What is the probability that they exercise for at least 1 hour?

[1 mark]

Answer $\frac{27}{35}$

4 93 people were asked if they played online games one day.

The frequency tree shows some information about their answers.



4 (a) 75% of the people who answered Yes played one game.

Complete the frequency tree.

[3 marks]

$\frac{75}{100} \times 48 = 36$

4 (b) One of the 93 people is chosen at random.

P(used social media) is **more than** 0.68

What is the **smallest** possible number of people who used social media?

[2 marks]

$0.68 \times 93 = 63.24$ (1)

≈ 64

Answer 64 (1)

5 480 people are asked if they eat sushi.

20% say Yes.

$\frac{2}{3}$ of the people who say Yes eat sushi at least once a month.

Complete the frequency tree.

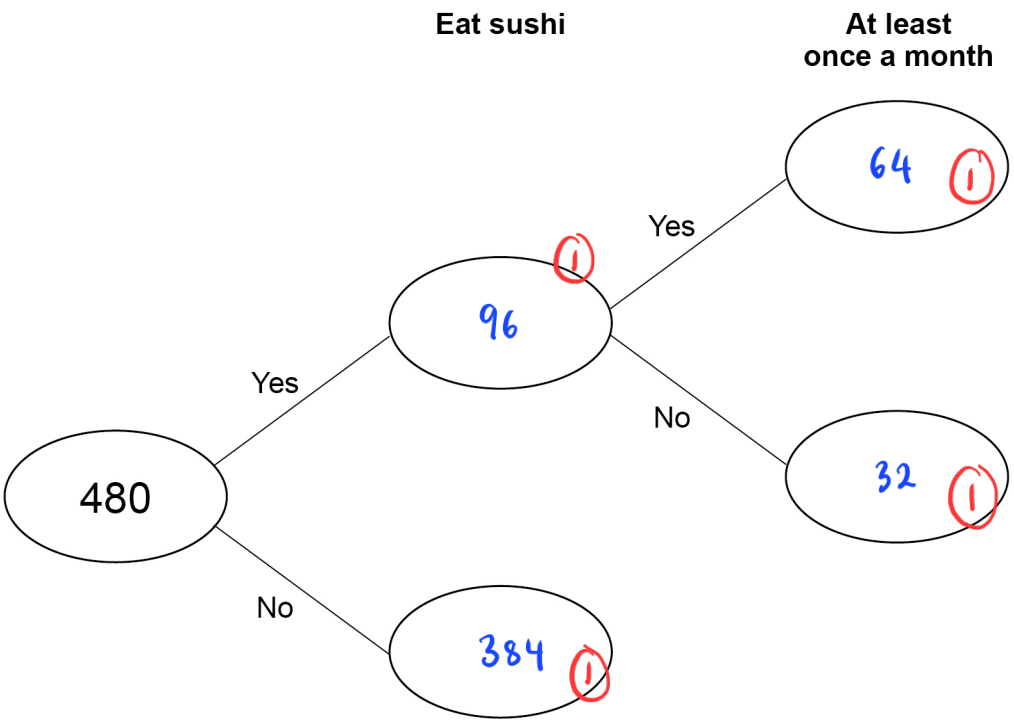
[4 marks]

$\frac{20}{100} \times 480 = 96$

$480 - 96 = 384$

$\frac{2}{3} \times 96 = 64$

$96 - 64 = 32$

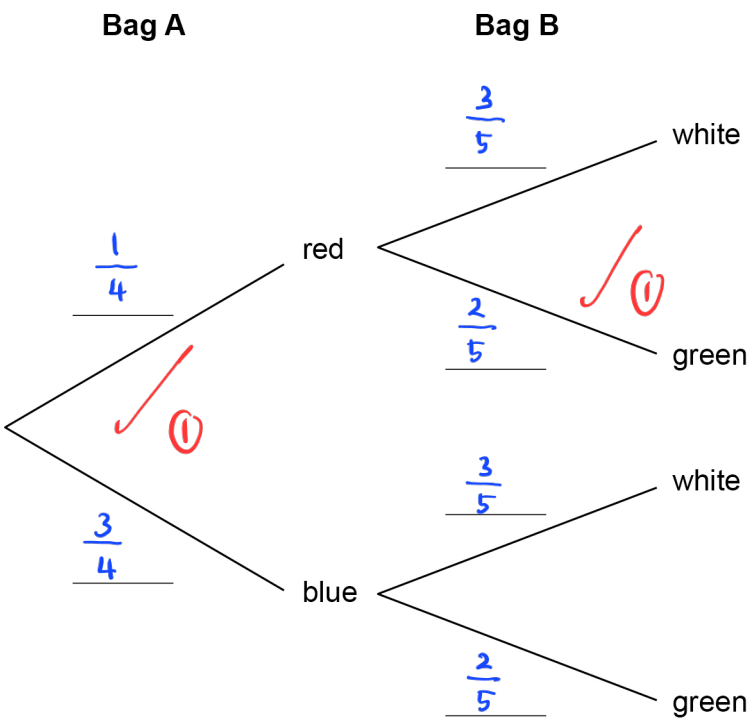


6 Bag A and bag B contain counters.

Bag A	**Bag B**
$\frac{1}{4}$ are red	3 are white
The rest are blue	2 are green

6 (a) Complete the tree diagram.

[2 marks]



6 (b) One counter is taken at random from each bag.

Work out the probability that one is red and one is white.

[2 marks]

$\frac{1}{4} \times \frac{3}{5} = \frac{3}{20}$

Answer $\frac{3}{20}$

7 8400 fans go to a rugby match.

6850 of the fans support the **Home** team.

The remaining fans support the **Away** team.

20% of the **Home** fans wear a scarf.

2319 of all the fans wear a scarf.

Complete the frequency tree.

[5 marks]