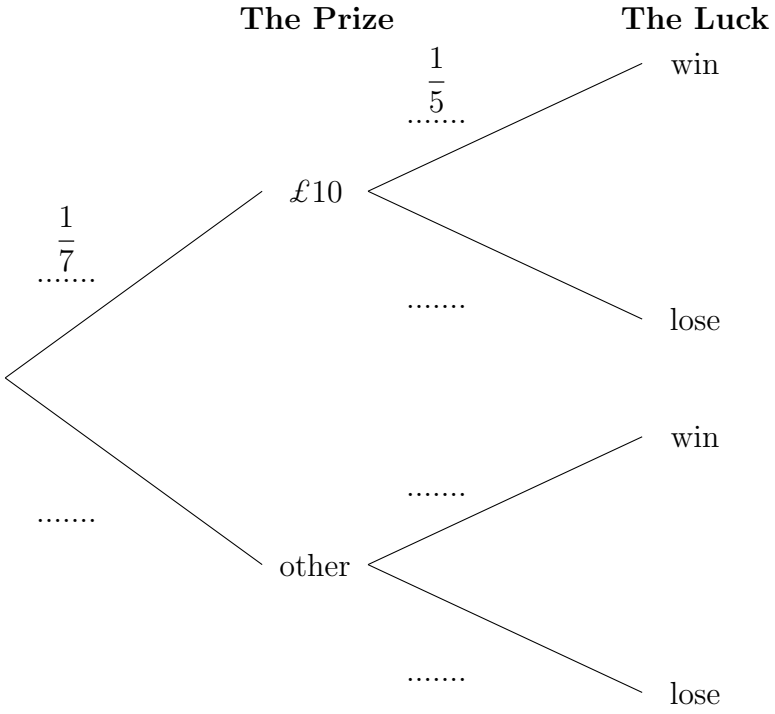
1. A game at a fair involves spinning two fair spinners.

   The first spinner is called "The Prize" and the second spinner is called "The Luck".

   The Prize is a 7-sided spinner with £10, £5, £3, £2, £1, £1 and £1 written on the sides.

   The Luck is a 5-sided spinner with "win" written on 1 side and "lose" written on 4 sides.

   (a) Complete the probability tree diagram.



   (b) Work out the probability of spinning £10 and spinning lose.

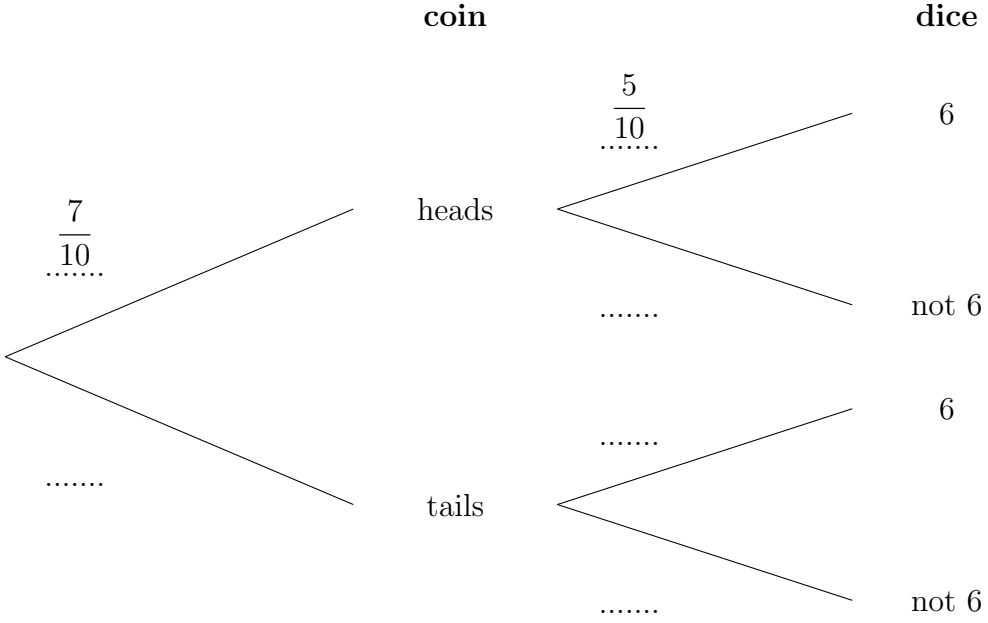
(b) .....

2. Dakota throws a biased coin and then rolls a biased dice.

   The probability that the biased coin is a head is $\frac{7}{10}$

   The probability that the biased dice scores a six is $\frac{5}{10}$

   (a) Complete the probability tree diagram.



   (b) Work out the probability of Dakota getting a head and a 6

   (b) .....

Answers

1. (a) **Prize: £10:** $\frac{1}{7}$ **, other:** $\frac{6}{7}$
Luck: win: $\frac{1}{5}$ **, lose:** $\frac{4}{5}$

(b) .

(b) $\ldots\ldots\frac{4}{35}\ldots\ldots$
FYI: $\frac{1}{7} \times \frac{4}{5}$ *M1*

2. (a) **coin: heads:** $\frac{7}{10}$ **, tails:** $\frac{3}{10}$
dice: 6: $\frac{5}{10}$ **, not 6:** $\frac{5}{10}$

(b)

(b) $\ldots\ldots\frac{35}{100}\ldots\ldots$
FYI: $\frac{7}{10} \times \frac{5}{10}$ *M1*