Do not write outside the box

6 Anna plays a game with an ordinary, fair dice.

If she rolls 1 she wins.

If she rolls 2 or 3 she loses.

If she rolls 4, 5 or 6 she rolls again.

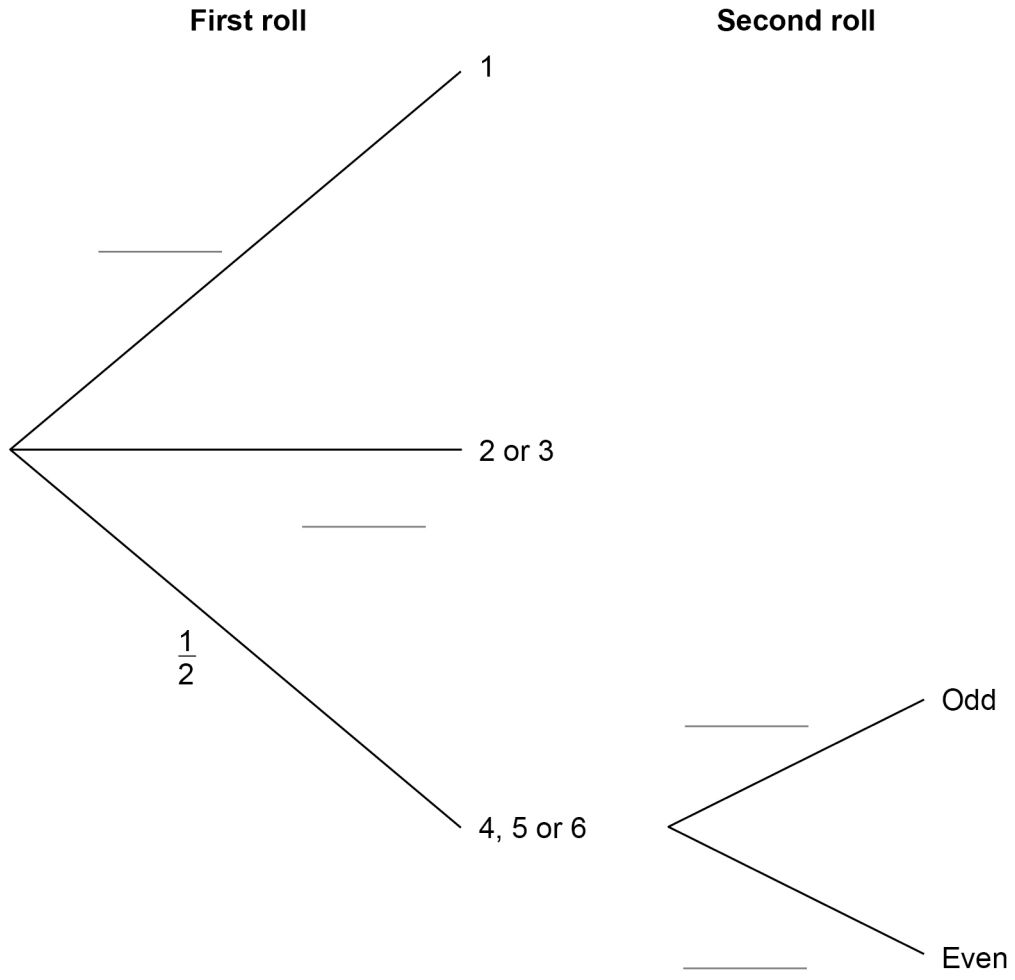
When she has to roll again,

if she rolls an odd number she wins

if she rolls an even number she loses.

6 (a) Complete the tree diagram with the four missing probabilities.

[2 marks]



Do not write outside the box

6 (b) Is Anna more likely to win or to lose?

You **must** work out the probability that she wins.

[4 marks]

Turn over for the next question

6