Do not write outside the box

21 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.

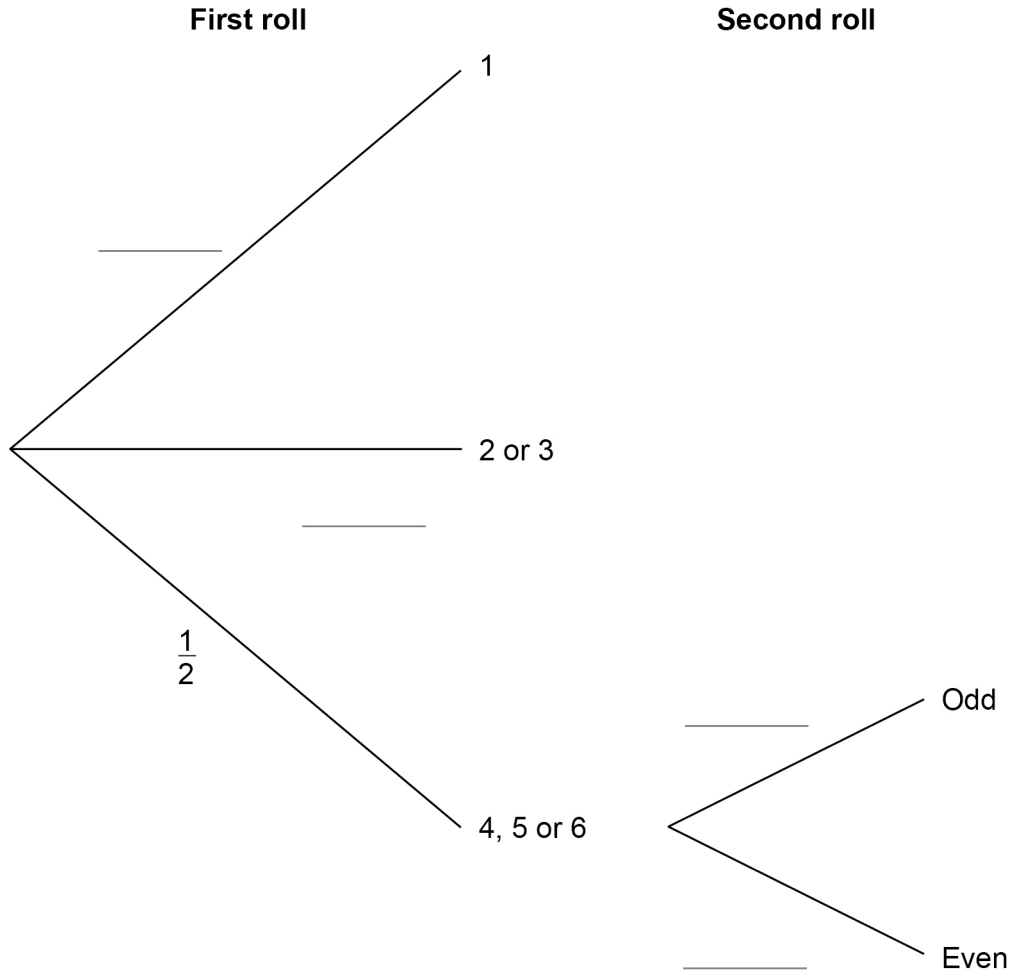
When she has to roll again,

if she rolls an odd number she wins

if she rolls an even number she loses.

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

[2 marks]



Do not write outside the box

21 (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