

# Calculate probabilities of independent events

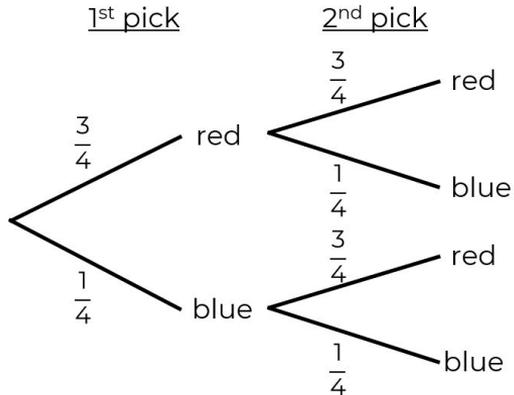
Maths

Mr Chan



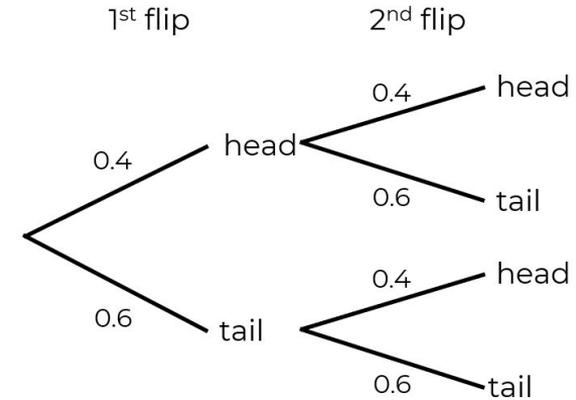
# Calculate probabilities of independent events

1. Tim takes two counters at random from a bag. He replaces the first counter after picking it out.



Calculate the probability that Tim picks two blue counters.

2. A biased coin is flipped twice.



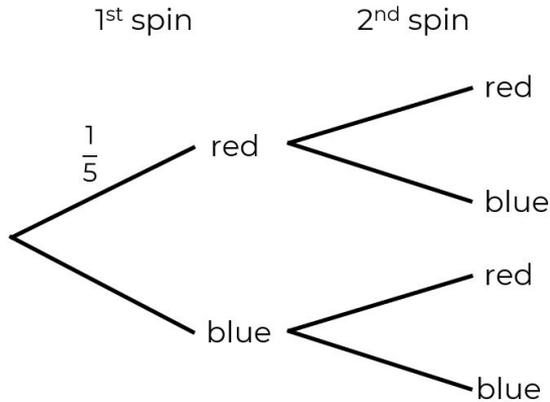
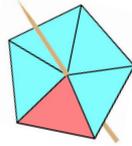
a) Calculate the probability of flipping two heads.

b) Calculate the probability of flipping exactly one tail.



# Calculate probabilities of independent events

3. A fair five-sided spinner  
Is spun twice.



- Complete the tree diagram.
- Calculate the probability of spinning red twice.

4. The probability that it rains on a Friday is 0.2. The probability that it will rain on a Saturday is 0.35.

a) Draw a probability tree diagram to show the outcomes.

b) Calculate the probability that it will rain on at least one of the days.

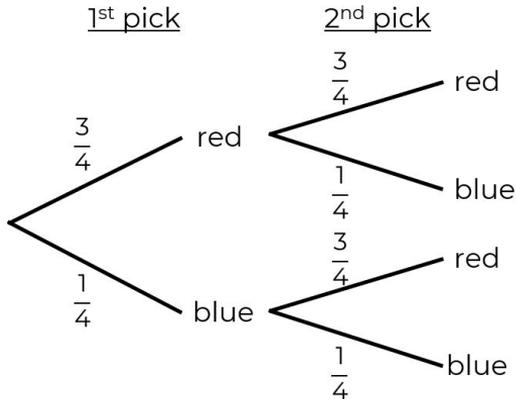


# Answers



# Calculate probabilities of independent events

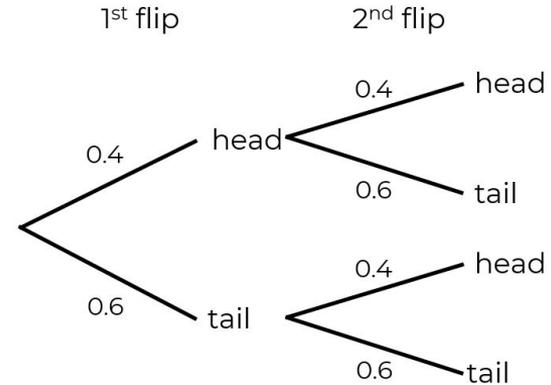
1. Tim takes two counters at random from a bag. He replaces the first counter after picking it out.



Calculate the probability that Tim picks two blue counters.

$$\frac{1}{16}$$

2. A biased coin is flipped twice.



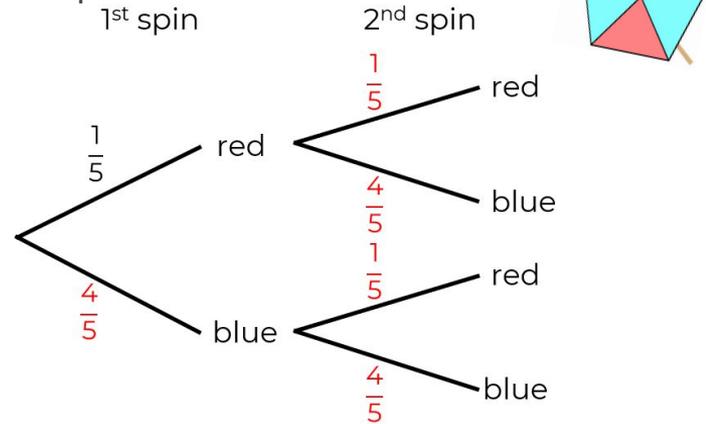
a) Calculate the probability of flipping two heads. **0.16**

b) Calculate the probability of flipping exactly one tail. **0.48**



# Calculate probabilities of independent events

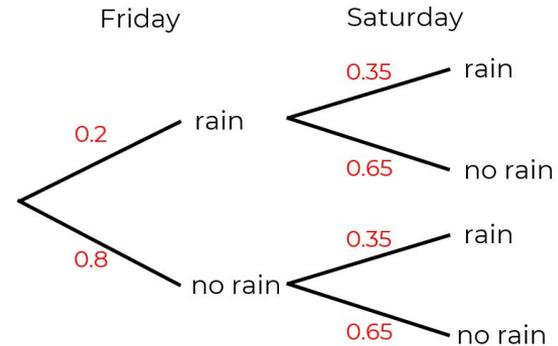
3. A fair five-sided spinner  
Is spun twice.



- a) Complete the tree diagram.  
b) Calculate the probability of spinning red twice.  $\frac{1}{25}$

4. The probability that it rains on a Friday is 0.2. The probability that it will rain on a Saturday is 0.35.

a) Draw a probability tree diagram to show the outcomes.



b) Calculate the probability that it will rain on at least one of the days.  $0.48$

