

Summer Term Maths Year 10

Tree diagrams for dependent events

Day 1

Week 10

1 Is each of these events independent or dependent?

a) Rolling two six-sided dice.

Independent Dependent

b) Taking a sweet from a bag, eating it and then taking another.

Independent Dependent

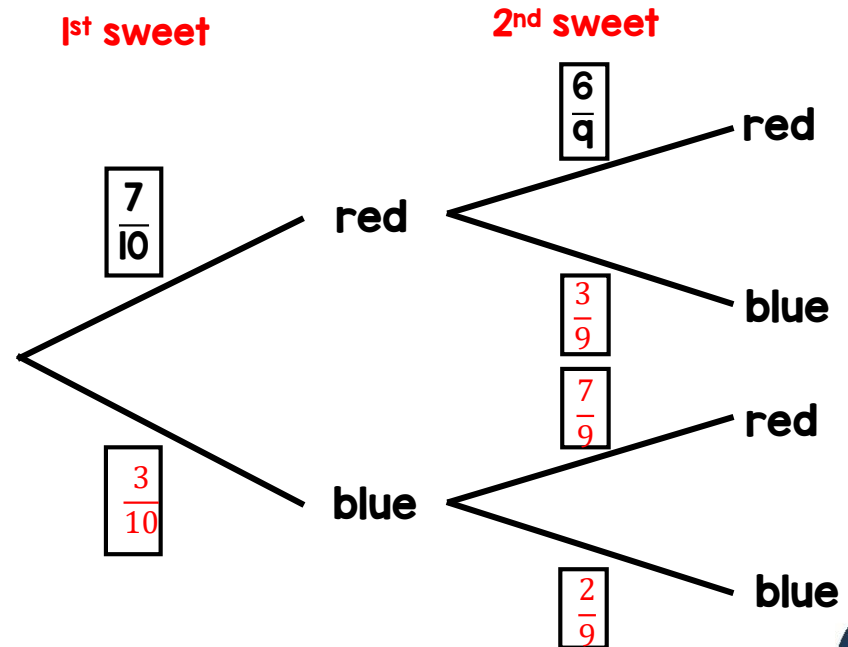
c) Taking a marble from a bag replacing it and then taking another marble.

Independent Dependent

d) Picking a card from a deck of card, keeping it and then picking another card.

Independent Dependent

2 Jack has a bag containing 7 red and 3 blue sweets. He chooses a sweet at random and eats it. He then chooses another sweet at random. Complete the probability tree diagram.

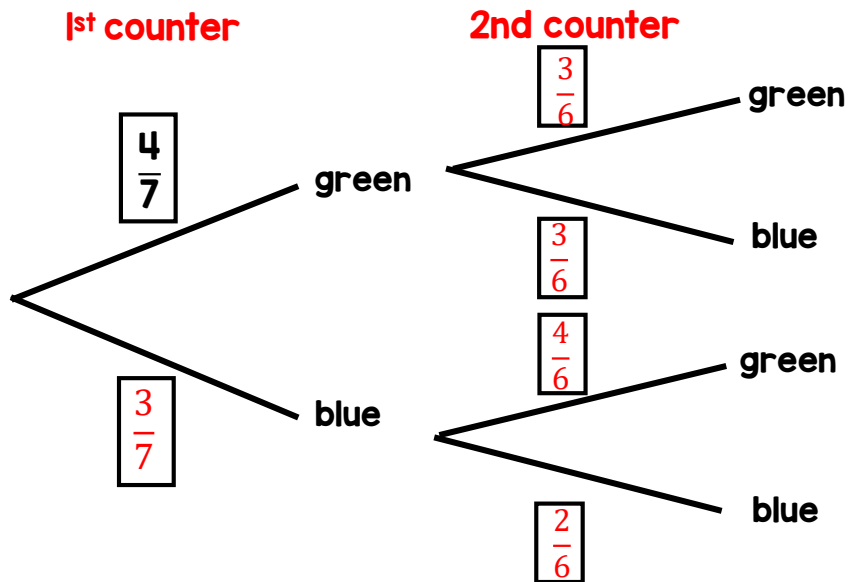


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3 A bag contains 4 green and 3 blue counters. Amir takes out a counter and does not replace it. He then takes out another counter.

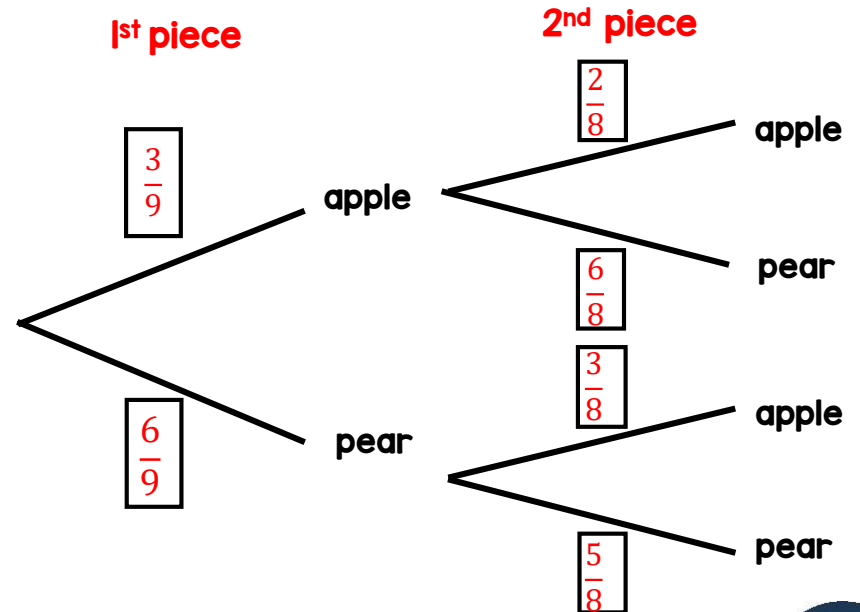
a) Complete the tree diagram.



b) Find the probability that both counters are blue. $\frac{6}{42}$

4 Rosie has a bag of fruit with 3 pieces of apple and 6 pieces of pear. Rosie randomly chooses a piece of fruit and eats it then takes a second piece.

a) Complete the tree diagram.



b) Find the probability that Rosie takes two different pieces of fruit. $\frac{36}{72}$