**Probability Tree Questions - GREEN**

1. A bag contains 4 red and 3 blue blocks. Two blocks are randomly selected from the bag.
2. Draw a tree diagram that shows all the outcomes and their probabilities if replacement occurs before the second selection. Then determine the probability of getting one red and one blue in any order.
3. Draw a tree diagram that shows all the outcomes and their probabilities if **no** replacement occurs before the second selection. Then determine the probability of getting one red and one blue in any order when there is no replacement.
4. A hat contains 8 purple and 2 green discs. Two discs are selected, without replacement, from the hat.
5. Draw a tree diagram to represent this situation.
6. Determine the probability that

(i) they are both green

(ii) the first is purple and the second is green

(iii) they are identical in colour

**Probability Tree Questions - AMBER**

1. A bag contains 4 red and 3 blue blocks. Two blocks are randomly selected from the bag.
2. Draw a tree diagram that shows all the outcomes and their probabilities if replacement occurs before the second selection. Then determine the probability of getting one red and one blue in any order.

Probabilities will remain the same

**r**

**r**

P (r) = 4/7

P (b) = 3/7

**b**

**r**

**b**

**b**

1. Draw a tree diagram that shows all the outcomes and their probabilities if **no** replacement occurs before the second selection. Then determine the probability of getting one red and one blue in any order when there is no replacement.

Probabilities will change due to fewer of one colour or the other

**r**

**b**

**b**

**b**

**r**

**r**

1. A hat contains 8 purple and 2 green discs. Two discs are selected, without replacement, from the hat.

Probabilities will change due to fewer of one colour or the other

1. Draw a tree diagram to represent this situation.

**p**

**p**

**g**

**g**

**g**

**p**

1. Determine the probability that

Remember:

The ‘AND’ rule 🡪 **x**

The ‘OR’ rule 🡪 **+**

(i) they are both green

(ii) the first is purple and the second is green

(iii) they are identical in colour

**Probability Tree Questions - RED**

1. A bag contains 4 red and 3 blue blocks. Two blocks are randomly selected from the bag.
2. Draw a tree diagram that shows all the outcomes and their probabilities if replacement occurs before the second selection. Then determine the probability of getting one red and one blue in any order.

Probabilities will remain the same



**r**

**r**

P (r) = 4/7

P (b) = 3/7



**b**



**r**



**b**

**b**



1. Draw a tree diagram that shows all the outcomes and their probabilities if **no** replacement occurs before the second selection. Then determine the probability of getting one red and one blue in any order when there is no replacement.

Probabilities will change due to fewer of one colour or the other





**r**

**b**

**b**

**b**

**r**

**r**









1. A hat contains 8 purple and 2 green discs. Two discs are selected, without replacement, from the hat.

Probabilities will change due to fewer of one colour or the other

1. Draw a tree diagram to represent this situation.



**p**

**p**

**g**

**g**

**g**

**p**









1. Determine the probability that

Remember:

The ‘AND’ rule 🡪 **x**

The ‘OR’ rule 🡪 **+**

(i) they are both green

**P (green AND green) =**

(ii) the first is purple and the second is green

 **P (purple AND green) =**

(iii) they are identical in colour

 **P (green AND green OR purple AND purple) =**