

Q1. (2018)

- 27** A bag contains 30 discs.
10 are red and 20 are blue.

One disc is taken out at random and replaced by **two** of the other colour.

Another disc is then taken out at random and replaced by **two** of the other colour.

Another disc is then taken out at random.

Work out the probability that all three discs taken out are **red**.

[3 marks]

Q2. (2020)

- 22** Visitors to a museum buy a child ticket or an adult ticket.
Here is some information about two groups of visitors.

Group X	250 visitors, including 120 children
Group Y	number of children : number of adults = 17 : 15

One visitor from each group is picked at random.

Is this statement correct?

Probability of picking two children > probability of picking two adults

You **must** show your working.

[4 marks]