

Answer on Question #58406 – Math – Statistics and Probability

Question

Three bags each contain four balls. Bag 1 has three red balls and one blue ball. Bag 2 has four red balls. Bag three has two red balls and two blue balls.

How many different outcomes are there?

Solution

Assume that the experiment is the following: one ball is taken from each bag, 3 balls in total.

There will be always red ball for the bag 2. So we need to consider only bag 1 and bag 3.

There can be a red ball or a blue ball for bag 1, as well as for bag 3.

So there are 4 different outcomes for bag 1 and bag 3: red+red, red+blue, blue+red, blue+blue.

So there are 4 different outcomes in this experiment: red+red+red, red+red+blue, blue+red+red, blue+red+blue.