Related Questions with Solutions

Questions

Quetion: 01

There are four balls of different colours and four boxes of colours same as those of the balls. Find the number of ways in which the balls, one in each box, could be placed such that a ball is not placed in the box of its own colour.

Solutions

Solution: 01

Clearly this is a problem of derangement of 4 objects.

$\therefore$ Required number of ways,

$$D(4) = 4! \left\{ \frac{1}{2!} - \frac{1}{3!} + \frac{1}{4!} \right\} = 12 - 4 + 1 = 9$$

Correct Options

Answer:01

Correct Answer: 9