

Permutation and Combination - Class XI

Past Year JEE Questions

Questions

Question: 01

The number of ways of distributing 8 identical balls in 3 distinct boxes so that none of the boxes is empty is

- A. 8C_3
- B. 21
- C. 3^8
- D. 5

Solutions

Solution: 01

Explanation

To distribute n objects among p people where everyone should get atleast one object, then number of ways to distribute those n objects

$$= {}^{n-1}C_{p-1}$$

For this question, $n = 8$ and $p = 3$

$$\therefore \text{Number of ways} = {}^{8-1}C_{3-1} = {}^7C_2 = 21$$