

## PERMUTATIONS AND COMBINATIONS - Class XI

### Past Year JEE Questions

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#### Questions

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##### Question: 01

How many ways are there to arrange the letters in the word GARDEN with vowels in alphabetical order

- A. 480
- B. 240
- C. 360
- D. 120

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#### Solutions

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##### Solution: 01

##### Explanation

In the word "GARDEN", there are two vowels A and E present, and A should come always before E.

$$\therefore \text{Total no of ways} = \frac{6!}{2!} = 360$$

Here A and E has fixed order that is why we divide by 2!.