Name

Probability Linear or Circular Permutation - Scenario to Counting Type

1

6 campers stand evenly spaced in a circle around a campfire. How many distinct arrangements are possible if arrangements that are rotations of each other count as the same?

Is this scenario counted with a linear or a circular permutation?

A Circular permutation

B Linear permutation

2

Ranked prizes (1st, 2nd, 3rd, and so on) are awarded to 5 contestants in a competition, one prize each. How many ways can the prizes be awarded?

Is this scenario counted with a linear or a circular permutation?

A Linear permutation

B Circular permutation

3

Ranked prizes (1st, 2nd, 3rd, and so on) are awarded to 7 contestants in a competition, one prize each. How many ways can the prizes be awarded?

Is this scenario counted with a linear or a circular permutation?

A Circular permutation

B Linear permutation

4

4 speakers are scheduled into 4 presentation time slots, one speaker per slot. How many schedules are possible?

Is this scenario counted with a linear or a circular permutation?

A Circular permutation

B Linear permutation

5

5 friends ride in the identical cars of a Ferris wheel arranged in a circle. How many distinct arrangements are possible if rotations of the wheel count as the same?

Is this scenario counted with a linear or a circular permutation?

A Linear permutation

B Circular permutation

6

7 speakers are scheduled into 7 presentation time slots, one speaker per slot. How many schedules are possible?

Is this scenario counted with a linear or a circular permutation?

A Linear permutation

B Circular permutation

7

5 ornaments are hung at equally spaced positions around a circular wreath. How many distinct arrangements are possible if rotations of the wreath count as the same?

Is this scenario counted with a linear or a circular permutation?

A Circular permutation

B Linear permutation

8

Ranked prizes (1st, 2nd, 3rd, and so on) are awarded to 4 contestants in a competition, one prize each. How many ways can the prizes be awarded?

Is this scenario counted with a linear or a circular permutation?

A Linear permutation

B Circular permutation