

1. How many ways can 6 charms be placed on a bracelet that has no clasp?

2. A food vending machine has 6 different items in a revolving tray. How many ways can the items be arranged on the tray?

3. In a game of musical chairs that are arranged in a circle, how many seating arrangements are there for 7 people, if they are arranged relative to the door?
 - b. How many arrangements are possible if the chairs are relative to each other?

4. How many ways can 5 biology books and 4 English books be arranged on a shelf if the English books need to stay together?

5. How many different ways can you arrange 12 beads if 4 are red, 2 are green, and 6 are blue?

6. How many ways can you arrange 4 blue beads and 6 green beads on a bracelet with no clasp?

7. How many ways can you display 7 books from a choice of 20 different books?

8. How many ways can 3 identical pen sets and 5 identical watches be given to 8 graduates if each person receives one item?

9. A photographer is taking a picture of a bride and groom together with 6 attendants. How many ways can he arrange the 8 people in a line if the bride and groom stand in the middle?

10. How many different ways can the letters of ILLINI be arranged?