

PERMUTATIONS

Read carefully and solve.

1. How many ways can you arrange six math books on a shelf?
2. Josiah plans to read five books during the summer break. In how many different orders can he read the books?
3. Find the number of different arrangements of the letters in the word NUMBERS.
4. Troy wants to play four different CDs while he paints his living room. In how many different orders can he play the four CDs?
5. How many ways can you arrange the digits, 5, 6, 7, and 8 using each one once, to make different four digit numbers?

6. Brian, Huey, and Regis plan to sit next to each other at the movies. How many different ways can they sit together in three adjacent seats?

7. Hazel the maid has to clean a seven-room house. If she cleans one room at a time, how many different orders can she clean the seven rooms?

8. Ralph is running some errands. He has four different locations he has to drive to. How many different orders can he drive to the four places?

9. Find the number of ways a leading man and an understudy can be chosen from eleven actors.

10. Find the number of ways a president, a vice-president, a secretary, and a treasurer can be selected from nine candidates.

11. How many different ways can first through fifth prizes be awarded in a contest among six people?