

Permutation and Combination 2

16. In how many ways a committee of three members can be formed from a group of 10 members such that one particular person is always included?

A.45 B.36 C.84 D.120

17. In how many ways a committee of three members can be formed from a group of 10 members such that one particular person is always excluded?

A.36 B.84 C.125 D.48

18. In how many ways can 10 students be seated around a circular table so that three students always sit together?

A.30240 B.15120 C.241920 D.none

19. In how many ways can 3 ladies and 4 gentleman arrange themselves about a round table so that all women sit together?

A.120

B.720

C.24

D.144

20. A number lock consist of four rings each marked with the digit from 0 to 9. In how many ways it is possible to make an unsuccessful attempt to open the lock?

A. 4^{10} B. $4^{10}-1$ C. 10^4 D. 10^4-1

21. How many three digit numbers can be formed by using the digit 1,2,3,4,5(without repetition)?

A.120 B.60 C.30 D.15

22. How many 4-digit numbers(without repetition) can be formed from the digits 4, 5, 6, 7, 8, 9 which are divisible by 2?

A.280 B.180 C.340 D.400

23. How many four digit numbers can be formed by using the digit 4,5,6, 7,8,9(repetition of digits is allowed)?

A.180 B.720 C.1296 D.4096

24. How many four digit odd numbers can be formed by using the digit 1, 2, 3, 4,5 and 6(without repetition)?

A.180 B.360 C.240 D.120