

MFG Assignment No: 03

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Division : SY BTech-II

Batch : C

/*Write a program to implement permutations for a competition with 12 participants. Calculate the number of ways to arrange the top 5 participants if 3 positions are awarded gold, silver, and bronze medals, and the remaining 2 positions receive participation certificates.*/

```
#include<iostream>
using namespace std;
```

```
int fact(int a) {
    if(a==0 || a==1){
        return 1;
    }
    else {
        return a*fact(a-1);
    }
}
```

```
int main() {
    int total;
    int positions;
    cout<<"Enter total number of participants:";
    cin>>total;
    cout<<"Enter number of positions:";
    cin>>positions;
    cout<<"The number of possible ways is :
"<<fact(total)/fact(total-positions)<<endl;
    return 0;
```

}

Output:

```
Enter total number of participants:12
Enter number of positions:4
The number of possible ways is : 11880
```