MFG Assignment No: 04

Name: Abitha S
PNR No: B25CE2015
Division : SY BTech-II
Batch : C

```cpp
/*A school has selected a group of 20 students for a debate competition. The task is to determine
the number of different teams of 3 students that can be formed from this group. This involves
calculating combinations, where the order of selection does not matter.*/

#include <iostream>
using namespace std;
long long factorial(int n) {
    long long fact = 1;        //Initializing the fact 1
    for(int i = 2; i <= n; i++) {    //Staring the fact from 2
        fact *= i;
    }
    return fact;
}

int main() {
    int n = 20, r = 3;

    long long c = factorial(n) / (factorial(r) * factorial(n - r));   //formula for combination

    cout << "Combination is: " << c << endl;   //output

    return 0;
}
```