

## Coding questions on functions

**Ques1.** Write a program to print all prime numbers between 2 given numbers.

```
#include<iostream>
#include<math.h>
using namespace std;

bool isPrime(int num){
    for(int i=2;i<=sqrt(num);i++){
        if(num%i==0){
            return false;
        }
    }
    return true;
}

int main(){

    int a,b;
    cin>>a>>b;

    for(int i=a;i<=b;i++){
        if(isPrime(i)){
            cout<<i<<endl;
        }
    }

    return 0;
}
```

**Ques2.** Write a program to print Fibonacci sequence.

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

void fib(int n){

    int t1=0;
    int t2=1;
    int nextTerm;

    for(int i=1;i<=n;i++){
        cout<<t1<<endl;
        nextTerm=t1+t2;
        t1=t2;
        t2=nextTerm;
    }
    return;
}

int main(){

    int n;
    cin>>n;

    fib(n);

    return 0;
}
```

**Ques3.** Write a program to find the factorial of a given number.

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

int fact(int n){
    int factorial=1;
    for(int i=2;i<=n;i++){
        factorial*=i;
    }
    return factorial;
}

int main(){

    int n;
    cin>>n;

    int ans = fact(n);
    cout<<ans<<endl;
    return 0;
}
```

**Ques4.** Write a program to find the binary coefficient ( $nCr$ )

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

```

int fact(int n){
    int factorial=1;
    for(int i=2;i<=n;i++){
        factorial*=i;
    }
    return factorial;
}

int main(){

    int n,r;
    cin>>n>>r;

    int ans = fact(n)/(fact(r)*fact(n-r));
    cout<<ans<<endl;

    return 0;
}

```

**Ques4.** Write a program to print the Pascal triangle.

```

#include<iostream>
using namespace std;

int fact(int n){
    int factorial=1;
    for(int i=2;i<=n;i++){

```

```

        factorial*=i;
    }
    return factorial;
}

int main(){

    int n;
    cin>>n;

    for(int i=0;i<n;i++){
        for(int j=0;j<=i;j++){
            cout<<fact(i)/(fact(j)*fact(i-j))<<" ";
        }
        cout<<endl;
    }

    return 0;
}

```

## Practice questions

**Ques6.** Write a program to find out whether a given number is **even or odd** using functions.

**Ques7.** Write a program to find out whether a given character is an alphabet or not using functions.

**Ques8.** Write a program with two functions to print the maximum and the minimum number respectively among three numbers entered by user.

**Ques9.** Write a program with a function to swap the values of 2 given integer variables.

**Ques10.** Write a program using functions to check if a person is eligible for voting or not by comparing his age with legal voting age i.e. 18.

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