

## Loops

### (Assignment Solutions)

#### Question 1 :

```
//Qs : Factorial of a number n

int n = 6;

int fact = 1;

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

cout << "factorial of " << n << " = " << fact << "\n";
```

#### Question 2 :

```
//Qs : Multiplication Table of n

int n = 8;

for(int i=1; i<=10; i++) {
    cout << (n * i) << " ";
}

cout << endl;
```

#### Question 3 :

```
//Qs : Check for Armstrong Number

int n = 371;

int num = n;

int cubeSum = 0;

while(num > 0) {
    int lastDig = num % 10;
    cubeSum += lastDig * lastDig * lastDig;
    num /= 10;
}

if(n == cubeSum) {
```

```
    cout << "Armstrong number\n";  
} else {  
    cout << "NOT an Armstrong number\n";  
}
```

**Question 4 :**

```
//Qs : Print Primes from 2 to N  
  
int N = 15;  
for(int i=2; i<=N; i++) {  
    int curr = i; //current number to check for  
    bool isPrime = true;  
    for(int j=2; j*j<=i; j++) {  
        if(curr % j == 0) {  
            isPrime = false;  
        }  
    }  
  
    if(isPrime) {  
        cout << curr << " ";  
    }  
}  
  
cout << endl;
```

**Question 5 :**

```
//Qs : Print N Fibonacci Numbers  
  
int n = 10;  
int first = 0, sec = 1;  
cout << first << " " << sec << " ";  
  
for(int i=2; i<n; i++) {  
    int third = first + sec;  
    cout << third << " ";  
    first = sec;  
    sec = third;  
}  
  
cout << "\n";
```