

C++ Assignments | Functions | Week 4

Q1 : Write a function to print squares of first n natural numbers, taking n as argument to the function

```
#include <iostream>

using namespace std;

int firstNsquare(int n){

    for (int i = 0; i<=n; i++){

        cout<<i*i<<endl;

    }

}

int main() {

int n;

cout<<"enter value of n: ";

cin>>n;

firstNsquare(n);

}
```

Q2 : Write a function that takes the radius of a circle as an argument and returns its area.

```
#include <iostream>

using namespace std;
```

```

int area(int r){

    cout<<"area of circle is : "<<3.14*r*r;

}

int main() {

int r;

cout<<"enter value of radius: ";

cin>>r;

area(r);

}

```

Q3: Given two numbers a and b, write a function to print all odd numbers between them.

```

#include <iostream>

using namespace std;

oddNumbers(int a,int b){

    for (int i =min(a,b); i<=max(a,b); i++){

        if(i%2!=0) cout<<i<<endl;

    }

}

```

```

    }
}

int main() {

int a,b;

cout<<"enter value of a: ";

cin>>a;

cout<<"enter value of b: ";

cin>>b;

oddNumbers(a,b);

}

```

Q4: Write a function to count the number of digits in a number and then print the square of this number.

```

#include<iostream>

using namespace std;

int countNumberOfDigits(int num) {

int digit = 0;

```

```

while(num > 0) {

digit++;

num /= 10;

}

cout<<digit*digit;

}


int main() {

int num;

cout<<"Enter value: ";

cin >> num;

int numberOfDigits = countNumberOfDigits(num);

}

```

Q5: The minimum number of functions present in any C++ program is:

- 1.0
- 2.1
- 3.2
4. Infinite

Solution:

1

Q6: State True and False:

1. A function may be called more than once from any other function
2. It is necessary for a function to return some value.

Solution :

1.True

2.False

Q7: Explore:

Can the same function name be used for different functions without any conflict?

solution:

The same function name can be used for different functions without any conflict if and only if they either have different data types for arguments or different number of arguments.