C++ Assignments | Loops-2 | Week 3

1. Predict the output

```
#include <bits/stdc++.h>
using namespace std;

int main() {
    while ('1' < '2')
        cout << "In while loop" << endl;
}
```

2. Predict the output

```
#include <bits/stdc++.h>
using namespace std;

int main( ) {
    int t = 10;
    while (t /= 2) {
        cout << "Hello" << endl;
    }
}
```

3. Predict the output

```
#include <bits/stdc++.h>
using namespace std;

int main( ) {
    for (int x = 1; x * x <= 10; x++)
        cout << "In for loop" << endl;
}
```

4. Predict the output

```
#include <bits/stdc++.h>
using namespace std;

int main( ) {
    int x = 10, y = 0 ;
    while ( x >= y ) {
        x-- ;
        y++ ;
        cout <<  x << " " <<  y  << endl ;
    }
}
```

5. WAP to print the sum of all the even digits of a given number.
   `Sample Input : 4556`
   `Output: 10`

6. WAP to print the sum of a given number and its reverse.
   `Sample Input : 12`
   `Sample Output : 33 [12+21]`

7. Print the factorials of first ‘n’ numbers
   `Sample Input : 10`
   `Output :`
   1
   2
   6
   `24`
   `120`
   `720`
   `5040`
   `40320`
   `362880`
   `3628800`

8. Print first ‘n’ fibonacci numbers.
   `Sample Input : 10`
   `Output :`

```
1 1 2 3 5 8 13 21 34 55
```

9. Write a program to print out all Armstrong numbers between 1 and 500. If the sum of cubes of each digit of the number is equal to the number itself, then the number is called an Armstrong number. For example, `153 = ( 1 * 1 * 1 ) + ( 5 * 5 * 5 ) + ( 3 * 3 * 3 )`

```
Output :
1
153
370
371
407
```

Note:- Please try to invest time doing the assignments which are necessary to build a strong foundation. Do not directly Copy Paste using Google or ChatGPT. Please use your brain😀.
