Programming Fundamentals:
Loops

Write a Program that prints number from 1 to 10.

Write a Program that prints numbers from 1 to 10.

```cpp
#include <iostream>
using namespace std;
int main() {
    float num;
    num = 1;
    cout << num<<endl;
    num++;
    cout << num<<endl;
    num++;
    cout << num<<endl;
    num++;
    cout << num<<endl;
    num++;
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    num++;
    cout << num<<endl;
    num++;
    cout << num<<endl;
    num++;
    cout << num<<endl;
    num++;
    cout << num<<endl;

    return 0;
}
```

```
1
2
3
4
5
6
7
8
9
10

Process finished
with exit code 0
```

Loops: A loop is a set of instructions that are repeatedly executed until a defined condition is reached. There are three kinds of loops
- While
- Do While
- For

While loop: It runs the statement until the condition is true. The syntax looks like
while (Condition) {
Statement;
}

Write a Program that prints numbers from 1 to 10.

```cpp
#include <iostream>
using namespace std;
int main() {
    int num;
    num = 1;
    while (num <= 10){
        cout << num << endl;
        num++;
    }
    return 0;
}
```

```
1
2
3
4
5
6
7
8
9
10

Process finished with exit code 0
```

Write a Program that prints a table of a given number from 1 to 5.

```cpp
#include <iostream>
using namespace std;
int main() {
    int num;
    cout << "Enter a number: ";
    cin >> num
    count = 1;
    while (count <= 5){
        cout << num << " X " << count << " = " << num * count << endl;
        count++;
    }
    return 0;
}
```

```
Enter a number: 4
4 x 1 = 4
4 x 2 = 8
4 x 3 = 12
4 x 4 = 16
4 x 5 = 20

Process finished with exit code 0
```

Do While loop: It runs the statement and checks if the condition is true. The syntax looks like

do {
Statement;
} while (condition);

Write a Program that fetches inputs again and again until the user input zero.

```cpp
#include <iostream>
using namespace std;
int main() {
    int num;
    do {
        cout << "Enter a number: ";
        cin >> num
    } while (num != 0);
    return 0;
}
```

```
Enter a number: 3
Enter a number: 4
Enter a number: -5
Enter a number: 0

Process finished with exit code 0
```