



**C++ Programming
Quick Challenge**

Times Tables

Create a C++ program that will create a Times Tables chart similar to the one below.

Your program should use nested loops.

The screenshot shows a Windows command-line window titled "C:\Users\philg\Desktop\Times Tables\Times Tables.exe". The window displays a 10x10 multiplication table. The numbers 1 through 10 are listed along the top and left edges. The product of each row and column intersection is printed in the corresponding cell. For example, the cell at the intersection of row 4 and column 4 contains the value 16. The entire table is as follows:

	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Below the table, the command-line interface shows the process exiting and prompting for user input.

```
Process exited after 0.04958 seconds with return value 0
Press any key to continue . . .
```

Solution

```
#include <iostream>
using namespace std;
int main()
{
    // print top row
    for(int i = 1; i <= 10; i++)
    {
        cout << "\t" << i;
    }
    cout << "\n";

    // print all other rows
    for(int i = 1; i <= 10; i++)
    {
        cout << i << "\t";
        for(int j = 1; j <= 10; j++)
        {
            cout << i*j << "\t";
        }
        cout << "\n";
    }
    return 0;
}
```