

This daily will allow you to practice with the left shift operator “<<”. Write a main program that declares an unsigned integer named `x` and initializes it with the value of 1. Write a for-loop that prints out an iteration number starting from zero, a colon, and the value of `x` on a single line. Your loop should then use the left shift operator to shift the value of `x` over by one bit to the left and then save the new value in `x`. Allow the loop to run until the number `x` is equivalent to zero. Your output should look something like the following:

```

C:\Windows\system32\cmd.exe
0: 1
1: 2
2: 4
3: 8
4: 16
5: 32
6: 64
7: 128
8: 256
9: 512
10: 1024
11: 2048
12: 4096
13: 8192
14: 16384
15: 32768
16: 65536
17: 131072
18: 262144
19: 524288
20: 1048576
21: 2097152
22: 4194304
23: 8388608
24: 16777216
25: 33554432
26: 67108864
27: 134217728
28: 268435456
29: 536870912
30: 1073741824
31: 2147483648
Press any key to continue . . .

```

You may have more numbers listed if you are on a machine with 64 bit integers. You may not use the multiply operator “*” in this assignment. You may also want to use `%u` instead of `%d` for printing your numbers so that you get an unsigned integer representation instead of a signed one.

At the top of your code you should have a comment section that has the following format:

```

/*****
Author: <your name>
Date: <Today's date>
Effort: <Time you spent on this project>
Purpose: <Purpose of this assignment in your own words>
*****/

```