



Introduction to C Programming

Module 14.5: Practice Day 01

(Codeforces Links and Practice Questions)

Topics:

1. Nested Loop
2. Pattern Printing
3. Functions

Codeforces Problem Links:

1. [P. Shape1](#)
2. [T. Shape2](#)
3. [W. Shape3](#)
4. [H. Sorting](#)

Practice Problem 1

Question: Take a positive integer N as input and print the pattern shown in the sample input output.

Sample Input	Sample Output
5	<pre> * ** *** **** *****</pre>
7	<pre> * ** *** **** ***** ***** ***** *****</pre>

Practice Problem 2

Question: Take a positive integer N as input and print the pattern shown in the sample input output.

Sample Input	Sample Output
5	<pre>***** * * * * *</pre>
8	<pre>***** * * * * * * * *</pre>

Practice Problem 3

Question: Make a function named `char_to_ascii()` which will take a character as parameter and it will convert that character to ascii value and return through that function. So, the return type will be int. Now in the main function take a character input and call that function to get the integer value of it and print that in the main function.

Bonus: You can also try this with 4 different types of function use cases.

Sample Input	Sample Output
a	97
A	65
0	48

Practice Problem 4

Question: Make a function named **small_to_capital()** which will take a small alphabet as a parameter (which is a character) and it will convert that small alphabet to capital alphabet and return through that function. So, the return type will be char. Now in the main function take a character input which will be small alphabets and call that function to get the capital alphabet and print that in the main function.

Bonus: You can also try this with 4 different types of function use cases.

Sample Input	Sample Output
a	A
z	Z
q	Q

Practice Problem 5

Question: Make a function named **capital_to_small()** which will take a capital alphabet as a parameter (which is a character) and it will convert that capital alphabet to small alphabet and return through that function. So, the return type will be char. Now in the main function take a character input which will be capital alphabets and call that function to get the small alphabet and print that in the main function.

Bonus: You can also try this with 4 different types of function use cases.

Sample Input	Sample Output
A	a
Y	y
Q	q