

LOOP Practice Problems

PROBLEM 1) Rectangle

Sample Input: 4, 6

Sample Output:

123456

123456

123456

123456

Hint: 4 and 6 means 4 lines of numbers having 1..6 in each line.

PROBLEM 2) Triangle - Left Justified. Draw a right-angled triangle of a given height.

Sample Input: 4

Sample Output:

*

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PROBLEM 3) Triangle - Left Justified. Draw a right-angled triangle of a given height.

Sample Input: 4

Sample Output :

1

12

123

1234

PROBLEM 4) Triangle - Right Justified. Draw a right-angled triangle of a given height.

Sample Input: 4

Sample Output:

			*
		*	*
	*	*	*
*	*	*	*

Hint: Count and print the appropriate number of spaces in front of stars. Notice that there is one less space and one more star in each line.

PROBLEM 5) Triangle - Right Justified, Draw right-angled triangle of a given height.

Sample Input: 5

Sample Output:

				1
			1	2
		1	2	3
	1	2	3	4
1	2	3	4	5

PROBLEM 6) Triangle - Isosceles. Draw a triangle of a given height.

Sample Input 1: 3

Sample Output 1:

		*		
	*	*	*	
*	*	*	*	*

Sample Input 2: 4

Sample Output 2:

			*			
		*	*	*		
	*	*	*	*	*	
*	*	*	*	*	*	*

PROBLEM 7) Triangle - Isosceles. Draw a triangle of a given height.

Sample Input 2: 4

Sample Output 2:

			1			
		1	2	3		
	1	2	3	4	5	
1	2	3	4	5	6	7

Sample Input 1: 3

Sample Output 1:

		1		
	1	2	3	
1	2	3	4	5

PROBLEM 8) Rhombus. Just draw the image of the above triangle once. And then, the opposite, once.

Sample Input: 3

Sample Output:

		*		
	*	*	*	
*	*	*	*	*
	*	*	*	
		*		

PROBLEM 9) Rhombus. Just draw the image of the above triangle once. And then, the opposite, once.

Sample Input: 4

Sample Output:

			1			
		1	2	3		
	1	2	3	4	5	
1	2	3	4	5	6	7
	1	2	3	4	5	
		1	2	3		
			1			

PROBLEM 10) Hollow Rectangle. Display a rectangle of a given length and width.

Sample Input: 4, 5

Sample Output:

*	*	*	*	*
*				*
*				*
*	*	*	*	*

Hint 1: Print the character space (' ') in the middle.

Hint 2: You can re-use your solution to PROBLEM 2 and use if condition to selectively print the first and the last star of each line and all-stars of the first and last line.

PROBLEM 11) Hollow Rectangle. Display a rectangle of a given length and width.

Sample Input:

4

5

Sample Output:

1	2	3	4	5
1				5
1				5
1	2	3	4	5

PROBLEM 12) Triangle - Left Justified Draw right-angled triangle of given height Sample Input: 5
Sample Output

*				
*	*			
*		*		
*			*	
*	*	*	*	*

PROBLEM 13) Hollow Triangle - Left Justified. Draw a right-angled triangle of a given height.
Sample Input: 5
Sample Output:

1				
1	2			
1		3		
1			4	
1	2	3	4	5

PROBLEM 14) Hollow Triangle Draw right-angled triangle of given height Sample Input: 5
Sample Output:

				*
			*	*
		*		*
	*			*
*	*	*	*	*

PROBLEM 15) Hollow Triangle Draw right-angled triangle of a given height.

Sample Input: 5

Sample Output :

				1
			1	2
		1		3
	1			4
1	2	3	4	5

PROBLEM 16) Hollow Triangle – Isosceles. Draw a triangle of a given height.

Sample Input 1: 3

Sample Output 1:

		1		
	1		3	
1	2	3	4	5

Sample Input 2: 4

Sample Output 2:

			1			
		1		3		
	1				5	
1	2	3	4	5	6	7

PROBLEM 17) Rhombus, Just draw the image of the above triangle once. And then, the opposite, once.

Sample Input: 4

Sample Output :

			1			
		1		3		
	1				5	
1						7
	1				5	
		1		3		
			1			

PROBLEM 18) Palindrome.

Palindrome: A palindrome is a word, number, phrase, or other sequence of characters that reads the same backward as forward, such as *madam* or *racecar*, 1234321, 62826.

Sample Input: 5

Sample Output:

123454321

PROBLEM19) Palindromic Triangle

Sample Input: 5

Sample Output:

#	#	#	1	#	#	#
#	#	1	2	1	#	#
#	1	2	3	2	1	#
1	2	3	4	3	2	1

PROBLEM 20) Write a python program that prints alphabet pattern 'Z' of size N using * where N will be given as input.

Sample Input1: 5

Sample Output1:

	C1	C2	C3	C4	C5
L1	*	*	*	*	*
L2				*	
L3			*		
L4		*			
L5	*	*	*	*	*

Sample Input2: 4

Sample Output2:

	C1	C2	C3	C4
L1	*	*	*	*
L2			*	
L3		*		
L4	*	*	*	*