

NAME: _____

TRISECT INSTITUTE**JPR-M2**

DATE: _____

Java Practice

Task 1	Given a string as input, count the number of special characters in the string. Note that in this problem any character that is not an alphabet or a digit is a special character.	
Test Cases	Input	Expected Output
	"hello#2\$\$BD*"	Special:4
	"#@\$%^&:[]=@hbQ"	Special:11
	"Hihi8900"	Special:0

Task 2	Given a string as input, print the following pattern. Note that you need to maintain two strings String1 : where the characters from the input string are being added String2: Where the output string is being created	
Test Cases	Input	Expected Output
	"123"	1#12#123#
	"ABCD"	A#AB#ABC#ABCD#
	"PQ"	P#PQ#

Task 3	Given a string as input replace 1 by A, 2 by b, 3 by c and 4-9 by x. 0 and other characters appear as it is in the new string and are not changed.	
Test Cases	Input	Expected Output
	"12049brt"	Ab0xxbrt
	"a1b9c3d4QW"	aAbxccdXQW
	"1234567890"	Abcxxxxxx0
	"Hello"	Hello

Task 4	Given a string as input, create a new string where A is replaced by B, B is replaced by A and all C and D are removed.	
Test Cases	Input	Expected Output
	"ABCDEF"	BAEF
	"BAD CAR"	AB BR
	"I GOT A BIRTHDAY CARD"	I GOT B AIRTHBY BR

Task 5	Given a string as input, create a new string where the latter half appears first. If the string is of odd length then the middle char remains in its position.	
Test Cases	Input	Expected Output
	"JAVA"	VAJA
	"TRISECT"	ECTSTRI
	"123456"	456123
	"HELLO"	LOLHE
	"A"	A

Task 6	Given a string as input, print two strings, one of all the chars appearing at odd index and the second of all the chars appearing at even index.	
Test Cases	Input	Expected Output
	"JobReadyJava"	Odd:oRayaa Even:JbedJv
	"AbCdEf"	Odd:bdf Even:ACE
	"A1B2C3D4E"	Odd:1234 Even:ABCDE
	"Q"	Odd: Even:Q

Task 7	Given a string str as input, check whether str can be of the type str = str1+str1.	
Test Cases	Input	Expected Output
	"Java"	No
	"dada"	Yes (because dada = da+da)
	"Indian"	No
	"123123"	Yes
	"ABCDEABCD"	No

Task 8	The input string consists of two words separated by a space. Print the two words.	
Test Cases	Input	Expected Output
	"Job Ready"	Job Ready
	"Trisect Institute"	Trisect Institute
	"Java Master"	Java Master

Task 9	A statement is a string of words where each word is separated by a space. Given a string representing a statement as input, print all the words occurring in the string.	
Test Cases	Input	Expected Output
	"Job Ready Java"	Job Ready Java
	"Going to the market"	Going to the market
	"Hello"	Hello

Task 10	Any character ch which represents an uppercase alphabet can be converted into lowercase by <code>ch1 = (char)(ch+'a'-'A')</code> where ch is the character to be converted into lowercase. Given a string as input, convert all the alphabets in it to lowercase.	
Test Cases	Input	Expected Output
	"Hello"	hello
	"My Name Is"	my name is
	"JAVA"	java

Task 11	Any character ch which represents a lowercase alphabet can be converted into uppercase by <code>ch1 = (char)(ch-'a'+'A')</code> where ch is the character to be converted into uppercase. Given a string as input, convert all the alphabets in it to uppercase.	
Test Cases	Input	Expected Output
	"Hello"	HELLO
	"My Name Is"	MY NAME IS
	"JAVA"	JAVA

Task 12	Given a string as input, change the case of all the alphabets in the string.	
Test Cases	Input	Expected Output
	"Trisect"	tRISECT
	"Java Master"	jAVA mASTER
	"12 oranges NICE"	12 ORANGES nice
	"INDIA great"	india GREAT

Task 13	Given two strings as input, string 1 has the correct answers of a MCQ paper and string 2 has the answers submitted by a student, calculate the score of the student. A correct answer gets 4 marks, a wrong answer gets -1 marks. Space in string 2 denotes that the question has not been attempted by the student.	
Test Cases	Input	Expected Output
	String1="ABCB" String2="ABDD"	10
	String1="ABCA" String2=" BBB"	-3
	String1="ABCB" String2="AB BD"	16