

Practice Problem Set 1

1. Write a program in java to find whether a string taken as input from user is a palindrome or not.
2. Write a program in java to find out the number of duplicate characters in a given string, when the string is taken as input from user.
3. Write a program in java to count the number of vowels, spaces and special character in an inputted statement.
4. Write a program in java to sort an array of integers in an efficient manner.
5. Write a program in java to check whether a number is an Armstrong number or not.
6. Write a program in java to check whether a number is perfect number or not.(ex: 6 is a perfect number as the factors of 6 are 1,2,3 whose summation adds to the number 6.)
7. Write a program in java to store the reverse of a string.
8. Write a program in java to find out whether the given number is a power of 2.
9. Write a recursive program in java to find the Fibonacci series till a given input number.
10. Write a program to find the occurrences of a particular input substring in an input string.
11. Write a program in java to take a full name with surname and middle name optional) as input, then find the initial of that name, i.e. if the input is "Sachin Ramesh Tendulkar", the program should print "S.R. Tendulkar".
12. Write a recursive program in java to find the gcd of three numbers.
13. Write a program in java to compare two input strings and find out whether they have any common substring of length at least 2. You should print all the common substrings. E.g. Suppose strings are "Apple" and "Maple", then you should print "ap", "ple" and "le".
14. Write a program in java to find out the number of strong numbers in a range specified by the maximum and minimum number.
15. Write a program in java to find out the reverse of an input number.
16. Write a program that reads in from the user an integer (n) between 1000 and 9999. Then it prompts the user to enter an integer (d) between 0 and 9 and a character (c). Your program should first replace the second and the last digit in (n) with d. Then it should display the character that

precedes (c) followed by the number after the change and then the character that comes after (c).

17. Write a program in java to take as input a full name, and then replace all the vowels in the string with the next character in alphabetical order.
18. Write a program in java to find the sum of the even and odd digits of the number which is given as input.
19. Write a program in java to find Floyd triangle till a given range of input.
20. Write a program that takes as input three set of (x,y) coordinates. Check whether these coordinates represent the vertices of a valid triangle. If not, then prompt the user to provide a fresh set of points. If the triangle is valid, print the equation of the circle of minimum radius that encircles the vertices and has center at the centroid of the triangle.