**Assignment of Loop in Java**

**1. Two numbers are entered through the keyboard. Write a java program to find the value of one number raised to the power of another. (Do not use Java built-in method)**

**Sample Output:**

Enter the base number : 5

Enter the power 4

Result: 625

**2. Write a java program that prompts the user to input an integer and then outputs the number with the digits reversed.**

**For example, if the input is 12345, the output should be 54321.**

**Sample Output:**

Enter the number 12345

Reverse of 12345 is 54321

**3. Write a java program to take an input from the user that reads a set of integers, and then prints the sum of the even and odd integers.**

**Sample Output:**

Enter the number: 12

Do you want to continue y/n? y

Enter the number: 15

Do you want to continue y/n? n

Sum of even numbers: 12

Sum of odd numbers: 15

**4. Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number.**

**Sample Output:**

Enter the positive integer: 10

Number is not prime

**5. Write a java program to accept two numbers from the user then calculate HCF.**

**Sample Output:**

Enter the first number :11

Enter the second number :22

HCF: 11

**6. Write a java program to do-while loop that asks the user to enter two numbers. The numbers should be added and the sum displayed. The loop should ask the user whether he or she wishes to perform the operation again. If so, the loop should repeat; otherwise it should terminate.**

**Sample Output:**

Enter the first number: 3

Enter the second number: 15

Sum of numbers: 18

Do you want to continue y/n? y

Enter the first number: 12

Enter the second number: 10

Sum of numbers: 22

Do you want to continue y/n? n

**7. Write a java program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.**

**Sample Output:**

Enter the number 5

Do you want to continue y/n? y

Enter the number -10

Do you want to continue y/n? y

Enter the number 00

Do you want to continue y/n? y

Enter the number 22

Do you want to continue y/n? n

Positive numbers: 2

**8. Write a java program to enter the numbers till the user wants and at the end the program should display the largest and smallest numbers entered.**

**Sample Output:**

Enter the number 85

Enter the number 99

Largest number: 99

Smallest number: 85

**9. Write a program to print out all Armstrong numbers between 1 and 500. If the sum of cubes of each digit of the number is equal to the number itself, then the number is called an Armstrong number.**

**For example, 153 = ( 1 \* 1 \* 1 ) + ( 5 \* 5 \* 5 ) + ( 3 \* 3 \* 3 )**

**Sample Output:**

Armstrong numbers between 1 to 555 153 370 371 407

**10. Write a java program to print Armstrong numbers between 1 and 500 using a for loop. If the sum of cubes of each digit of the number is equal to the number itself, then the number is called an Armstrong number.**

**Sample Output:**

Enter a number 153

153 is a Armstrong number

**11. Write a program to print Fibonacci series of n terms where n is input by user. 0 1 1 2 3 5 8 13 24 .....**

**Sample Output:**

Enter number of terms of series : 8 0 1 1 2 3 5 8 13

**12. Write a java program that generates a random number and asks the user to guess what the number is. If the user's guess is higher than the random number, the program should display "Too high, try again." If the user's guess is lower than the random number, the program should display "Too low, try again." The program should use a loop that repeats until the user correctly guesses the random number.**

**13. Write a java program to take a input from the user then print below pattern:**

**Sample Output:**

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**14. Write a Java method to find the smallest number among three numbers.**

**Test Data:**

Input the first number: 25

Input the Second number: 37

Input the third number: 29

**Expected Output:** The smallest value is 25.0

**15. Write a method that uses a while loop. This method would replace every vowel in the String with X. Call your method from the main method.**

**Test Data**

**Input : sachin**

**Output: sxchxn**