# **Display String**

Jack wanted to display the String for a particular number of times. Help him by writing a java program to display the string.

Note: number of times of display cannot be less than 1, if so display "<number> is not a valid input"

#### Sample Input 1

Enter the String

Rainbow

Enter the number

4

#### Sample Output 1

Rainbow

Rainbow

Rainbow

Rainbow

#### Sample Input 2

Enter the String

Rainbow

Enter the number

-9

#### Sample Output 2

-9 is not a valid input

# Reverse the number

Harry and Amy were playing a game. Harry would give out number, and Amy has to reverse the given number. Help Amy by writing java program to reverse the number.

Sample Input 1

Enter the number

61987

Sample Output 1

# Prime Factors

Willams wanted to find the prime factors of the given number. Help him by writing a java program to find the prime factors of the given number.

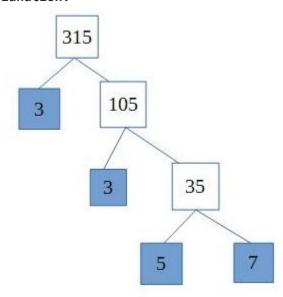
# Sample Input 1

315

# Sample Output 1

3 3 5 7

# Explanation:



Hence the prime factorization of 315 is **3 3 5 7** 

# Count of Prime numbers

Nancy wanted to check her son with the count of prime numbers between the given range. Help Nancy by writing a java program to find the count of prime numbers.

# Sample Input 1

Enter starting range

67

Enter ending range

90

# Sample Output 1

# Palindrome numbers

Nirmal wants to know the palindrome numbers between the given range of numbers. Help him by writing a java program to find the palindrome numbers.

# Sample Input 1

Enter the starting range

78

Enter the ending range

100

Sample Output 1

# Display Month/Day

Maheer wanted to check his son with names of month and days of the week. Maheer will choose whether his son has to display the names of month or day, If the choice is 1, he has to display the names of the month and if the choice is 2, he has to display the days of the week. This has to continue until Maheer chooses 3. Help him in displaying the names as per his father's choice.

# Sample Input / Output 1 1.Display the Months 2.Display the Days 3.Exit 1 1.January 2.February 3.March 4.April 5.May 6.June 7.July 8.August 9.September 10.October 11.November 12.December 1.Display the Months 2.Display the Days

3.Exit

# Sample Input / Output 2

- 1.Display the Months
- 2.Display the Days
- 3.Exit
- 2
- 1.Monday
- 2.Tuesday
- 3.Wednesday
- 4.Thursday
- 5.Friday
- 6.Saturday
- 7.Sunday
- 1.Display the Months
- 2.Display the Days
- 3.Exit

# Power of a Number

Ram is in the process of learning powers of a number. He is given a number and a digit. He has to find the power of that number to that digit.

Example if the number is 10 and the digit is 5 the output should be  $10^5$  = 100000. If either of the input is negative, the output should be "Invalid Input".

Help him do this by writing a program in java. Create a class "Power.java" and write the main method in it. Don't use in-built method to find the power.

# Sample Input 1: Enter the number 5 Enter the digit 3 Sample Output 1: 125 Sample Input 2: Enter the number 18 Enter the digit 4 Sample Output 2:

# Factors of a Number

Betsy teaches her daughter to find the factors of a given number. When she provides a number to her daughter, she should tell the factors of that number. Help her to do this, by writing a program.

Write a class FindFactor.java and write the main method in it.

#### Note:

- If the input provided is negative, ignore the sign and provide the output.
- If the input is zero the output should be "No Factors".

```
Sample Input 1 :
54

Sample Output 1 :
1, 2, 3, 6, 9, 18, 27, 54

Sample Input 2 :
-1869
Sample Output 2 :
```

1, 3, 7, 21, 89, 267, 623, 1869

# Lucky Number

William planned to choose a four digit lucky number for his car. His lucky numbers are 3,5 and 7. Help him find the number, whose sum is divisible by 3 or 5 or 7.

Provide a valid car number, Fails to provide a valid input then display that number is not a valid car number.

Note: The input other than 4 digit positive number[includes negative and 0] is considered as invalid.

Refer the samples, to read and display the data.

#### Sample Input 1:

Enter the car no:1234

#### Sample Output 1:

Lucky Number

#### Sample Input 2:

Enter the car no:1214

#### Sample Output 2:

Sorry its not my lucky number

# Sample Input 3:

Enter the car no:14

#### Sample Output 3:

14 is not a valid car number

# Number Palindrome

George and Tintin plays by telling numbers. George says a number to Tintin. Tintin should first reverse the number and check if it is same as the original. If yes, Tintin should say "Palindrome". If not, he should say "Not a Palindrome". If the number is negative, print "Invalid Input". Help Tintin by writing a program.

Sample Input 1 :

21212

Sample Output 1 :

Palindrome

Sample Input 2 :

6186

Sample Output 2 :

Not a Palindrome

# Find Number for Given Factorial

Tom teaches his student to find the factorial of a number. He wanted to test the understanding of the student. For that, he provides a number. He wants the students to tell him that number is a factorial of which number.

Example: If Tom provides the number as 120, the student should answer as 5 because 5! = 120.

Help the student by writing a program to do this. Note that the input should be a number greater than zero. If the input is less than or equal to zero, the output should be "Invalid Input". Also, if the input provided is not exactly the factorial of a number, say, the input provided is 122, which is not a perfect factorial of a number, it should return "Sorry. The given number is not a perfect factorial".

```
Sample Input 1:
5040
Sample Output 1:
7
Sample Input 2:
Sample Output 2:
Invalid Input
Sample Input 3:
700
Sample Output 3:
```

Sorry. The given number is not a perfect factorial

# List of prime numbers

To speed up his composition of generating unpredictable rhythms, A.R.Rahman wants the list of prime numbers available in a range of numbers. Can you help him out? Write a java program to print all prime numbers in the interval [a,b] (a and b, both inclusive).

#### Note

- Input 1 should be lesser than Input 2. Both the inputs should be positive.
- Range must always be greater than zero.
- If any of the condition mentioned above fails, then display "Provide valid input"
- Use a minimum of one for loop and one while loop

```
Sample Input 1:
2
15
Sample Output 1:
2 3 5 7 11 13
Sample Input 2:
8
5
Sample Output 2:
Provide valid input
```