Question-6

**Problem Statement –**Rhea Pandey’s teacher has asked her to prepare well for the lesson on seasons. When her teacher tells a month, she needs to say the season corresponding to that month. Write a program to solve the above task.

* Spring – March to May,
* Summer – June to August,
* Autumn – September to November and,
* Winter – December to February.

Month should be in the range 1 to 12.  If not the output should be “Invalid month”.

**Sample Input 1:**

* Enter the month:11

**Sample Output 1:**

* Season:Autumn

**Sample Input 2:**

* Enter the month:13

**Sample Output 2:**

* Invalid month

Question-7

**Problem Statement –**To speed up his composition of generating unpredictable rhythms, Blue Bandit 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

### Question-8

**Problem Statement –**Goutam and  Tanul plays  by  telling numbers.  Goutam says a number to Tanul.  Tanul should first reverse the number and check if it is same as the original.  If yes,  Tanul should say “Palindrome”.  If not, he should say “Not a Palindrome”.  If the number is negative, print “Invalid Input”.  Help Tanul by writing a program.

**Sample Input 1 :**

21212

**Sample Output 1 :**

Palindrome

**Sample Input 2 :**

6186

**Sample Output 2 :**

Not a Palindrome

Question-9

XYZ Technologies is in the process of increment the salary of the employees.  This increment is done based on their salary and their performance appraisal rating.

1. If the appraisal rating is between 1 and 3, the increment is 10% of the salary.
2. If the appraisal rating is between 3.1 and 4, the increment is  25% of the salary.
3. If the appraisal rating is between 4.1 and 5, the increment is  30% of the salary.

Help them to do this,  by writing a program that displays the incremented salary. Write a class “IncrementCalculation.java” and write the main method in it.

**Note   :**   If either the salary is 0 or negative  (or) if the appraisal rating is not in the range 1 to 5 (inclusive), then the output should be “Invalid Input”.

**Sample Input 1 :**

* Enter the salary

8000

* Enter the Performance appraisal rating

3

**Sample Output  1 :**

8800

**Sample Input  2 :**

* Enter the salary

7500

* Enter the Performance appraisal rating

4.3

**Sample Output  2 :**

9750

**Sample Input  3 :**

* Enter the salary

-5000

* Enter the Performance appraisal rating

6

**Sample Output  3 :**

* Invalid Input

Question-10

**Problem Statement –**Chaman 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