

Solution Code

```
import java.io.*;
import java.util.*;

public class PetersonNumber
{
    //an array is defined for the quickly find the factorial
    static long[] factorial = new int[] { 1, 1, 2, 6, 24, 120, 720, 5040, 40320,
    362880, 3628800, 39916800, 479001600};

    public static void main(String args[])
    {

        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number to check: ");
        //reading a number from the user
        int n=sc.nextInt();
        //calling the user-defined function to check Peterson number
        if (isPeterson(n))
            System.out.println("The given number is a Peterson number.");
        else
            System.out.println("The given number is not a Peterson number.");
    }
    //function to check the given number is Peterson or not
    static boolean isPeterson(int n)
    {
        int num = n;
        int sum = 0;
```

Solution Code

```
while (n > 0)
{
//determines the last digit of the given number
int digit = n % 10;
//determines the factorial of the digit and add it to the variable sum
sum += factorial[digit];
//removes the last digit of the given number
n = n / 10;
}
//compares sum with num if they are equal returns the number itself
return (sum == num);
}
}
```