```java
/*a e o f r n
a=armstrong number
e =even
o =odd
f =factorial
r =reverse
n =neon number

 * */

package com.geetus;

import java.util.Scanner;

public class Switchloops {

    public static void main String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter any alphabet");
        String alpha = sc.next();

        System.out.println("Enter Any Number:");
        int num = sc.nextInt();

        switch (alpha) {



            case "a":

                int rem, sum = 0;
                int temp = num;

                while (num > 0) {
                    rem = num % 10;
                    sum = sum + (rem * rem * rem);
                    num /= 10;
                }

                if (sum == temp) {
                    System.out.println("Your number is an Armstrong number");
                } else {
                    System.out.println("Not an Armstrong number");
                }
                break;

            case "e":
                System.out.println(" We Are Checking Your Number Is Even Or Odd");
                if(num%2==0) {
                System.out.println("Even Number");
                }
                else {
                    System.out.println("Odd Number");
                }
                    break;
```

```
58
59              case "f":
60                   int fact=1;
61                   for(int i=1;i<=num;i++) {
62                       fact*=i;
63                   }
64                   System.out.println("Factorial Of "+num+" is: "+fact);
65
66                   break;
67
68              case "r":
69                  int remender,summ=0;
70
71                  while(num>0) {
72                      remender=num%10;
73                      summ=summ*10+remender;
74                      num/=10;
75                  }
76                  System.out.println("Reverse Version Of this "+num+"is : "+summ);
77                  break;
78
79              case "n":
80                  int sq,add=0,tempo=num;
81                  sq=num*num;
82                  while(sq>0) {
83
84
85                      add=add+sq%10;
86                      sq/=10;
87                  }
88                  if(tempo==add) {
89                      System.out.println("It is a Neon Number");
90                  }
91                  else {
92                      System.out.println("Not Neon Number");
93                  }
94                  break;
95
96              default:
97                  System.out.println("Invalid option");
98          }
99
100         sc.close();
101     }
102 }
103
```