```
/*
Name: Zainulabdin Bughio
ICS4UA.3
Code name: even, odd, positve, negative or zero numbers
*/
import java.util.Scanner;
class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);//makes a new scanner
        System.out.println("enter the number");
        String number = scanner.nextLine();
        int num = Integer.parseInt(number);//grabs the int value of user input
         if(num==0){//uses if statements to decide what to print according to user input
            System.out.println("number is zero ");

        }else{
            System.out.println("number is not zero");
        if(num%2==0){//uses modulus to see if the number has a remainder afte being divided by 2
or not. if it does not then its even and if it does then its odd
            System.out.println("number is even");

        }else if(num%2!=0){
            System.out.println("number is odd");
        }
        }
        if(num>0){//if a number is greater then 0 then its postive and less then zero for negative. if
the number is zero then it does not meet either condition so it will not print anything.
            System.out.println("number is positive");

        }else if(num<0){
            System.out.println("number is negative");



        }

    }
}
```

```
/*
Name: Zainulabdin Bughio
ICS4UA.3
Code name: leap year checker
*/
import java.util.Scanner;
class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);//makes a new scanner
        System.out.println("enter the year");
        int number = scanner.nextInt();
        if(number%4==0){//step 1
            if(number%100==0){//step 2
                if(number%400==0){//step 3
                    System.out.println("year is a leap year");

                }

            }else{//step 4
                System.out.println("year is a leap year");
        }

    }else{//step 5
        System.out.println("it is not a leap year");
        }
    }
}


/*
Name: Zainulabdin Bughio
ICS4UA.3
Code name: Zodiac Sign Checker
*/

import java.util.Scanner;
import java.util.ArrayList;
class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);//makes a new scanner
        System.out.println("enter your birth month");
        String month = scanner.nextLine().toUpperCase();
        System.out.println("enter your birth date");
        int date = scanner.nextInt();
```

```
    //ungodly amount of if statements to go through every month and then use the AND gate to make sure that the number is in the range of a sign to print that sign.
    if(month.indexOf("MAR")>-1 && date>= 21 && date<=31){
       System.out.println("your sign is Aries");
    }
    if(month.contains("MAR") && date>= 1 && date<=20){
       System.out.println("your sign is Pisces");
    }
    if(month.indexOf("APR")>-1 && date>= 20 && date<=30){
       System.out.println("your sign is Taurus");
    }
    if(month.contains("APR") && date>= 1 && date<=19){
       System.out.println("your sign is Aries");
    }
    if(month.indexOf("MAY")>-1 && date>= 21 && date<=31){
       System.out.println("your sign is Gemini");
    }
    if(month.contains("MAY") && date>= 1 && date<=20){
       System.out.println("your sign is Taurus");
    }
    if(month.indexOf("JUN")>-1 && date>= 21 && date<=30){
       System.out.println("your sign is Cancer");
    }
    if(month.contains("JUN") && date>= 1 && date<=20){
       System.out.println("your sign is Gemini");
    }
    if(month.indexOf("JUL")>-1 && date>= 23 && date<=31){
       System.out.println("your sign is Leo");
    }
    if(month.contains("JUL") && date>= 1 && date<=22){
       System.out.println("your sign is Cancer");
    }
    if(month.indexOf("AUG")>-1 && date>= 23 && date<=31){
       System.out.println("your sign is Virgo");
    }
    if(month.contains("AUG") && date>= 1 && date<=22){
       System.out.println("your sign is Leo");
    }
    if(month.indexOf("SEP")>-1 && date>= 23 && date<=30){
       System.out.println("your sign is Libra");
    }
    if(month.contains("SEP") && date>= 1 && date<=22){
       System.out.println("your sign is Virgo");
    }
```

```
        if(month.indexOf("OCT")>-1 && date>= 23 && date<=31){
            System.out.println("your sign is Scorpio");
        }
        if(month.contains("OCT") && date>= 1 && date<=22){
            System.out.println("your sign is Libra");
        }
        if(month.indexOf("NOV")>-1 && date>= 22 && date<=30){
            System.out.println("your sign is Sagittarius");
        }
        if(month.contains("NOV") && date>= 1 && date<=21){
            System.out.println("your sign is Scorpio");
        }
        if(month.indexOf("DEC")>-1 && date>= 22 && date<=31){
            System.out.println("your sign is Capricorn");
        }
        if(month.contains("DEC") && date>= 1 && date<=21){
            System.out.println("your sign is Sagittarius");
        }
        if(month.indexOf("JAN")>-1 && date>= 20 && date<=31){
            System.out.println("your sign is Aquarius");
        }
        if(month.contains("JAN") && date>= 1 && date<=19){
            System.out.println("your sign is Capricorn");
        }
        if(month.indexOf("FEB")>-1 && date>= 19 && date<=29){
            System.out.println("your sign is Pisces");
        }
        if(month.contains("FEB") && date>= 1 && date<=18){
            System.out.println("your sign is Aquarius");
        }
    }
}
```

```
/*
Name: Zainulabdin Bughio
ICS4UA.3
Code name:  credit card awarder
*/
import java.util.Scanner;

class Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int totalPoints = 0;

        System.out.println("Enter your age:");
        int age = scanner.nextInt();

        if (age < 20) {//checks for a range of ages
            totalPoints += -10;
        } else if (age >= 21 && age <= 30) {
            totalPoints += 0;
        } else if (age >= 31 && age <= 50) {
            totalPoints += 20;
        } else if (age > 50) {
            totalPoints += 25;
        }

        System.out.println("Enter number of years at current address:");
        int addressYears = scanner.nextInt();

        if (addressYears < 1) {//checks for the amount of years lived at current address
            totalPoints += -5;
        } else if (addressYears >= 1 && addressYears <= 3) {//AND used to check for a range of
years
            totalPoints += 5;
        } else if (addressYears >= 4 && addressYears <= 8) {
            totalPoints += 12;
        } else if (addressYears > 8) {
            totalPoints += 20;
        }

        System.out.println("Enter your annual income(do not include $ sign)");
        double income = scanner.nextDouble();

        if (income < 15000) {//checks for Income and uses AND to check for range of income
            totalPoints += 0;
```

```
        } else if (income < 25000) {
            totalPoints += 12;
        } else if (income < 40000) {
            totalPoints += 24;
        } else if (income >= 40000) {
            totalPoints += 30;
        }

        System.out.println("Enter number of years at the same job:");
        int jobYears = scanner.nextInt();

        if (jobYears < 2) {
            totalPoints += -4;
        } else if (jobYears >= 2 && jobYears <= 4) {
            totalPoints += 8;
        } else if (jobYears > 4) {
            totalPoints += 15;
        }

        System.out.println("your total points are " + totalPoints);

        if (totalPoints < 20) {//checks to see how much total points you have and uses AND to
check for a range of numbers.
            System.out.println("Result: No card");
        } else if (totalPoints >= 21 && totalPoints <= 35) {
            System.out.println("Result: Card with $500 limit");
        } else if (totalPoints >= 36 && totalPoints <= 60) {
            System.out.println("Result: Card with $2000 limit");
        } else if (totalPoints > 60) {
            System.out.println("Result: Card with $5000 limit");
        }
    }
}
```

```
/*
Name: Zainulabdin Bughio
ICS4UA.3
Code name:  credit card awarder
*/
import java.util.Scanner;

class Main {
   public static void main(String[] args) {
      Scanner scanner = new Scanner(System.in);

      System.out.println("Enter the weight of your letter ");
      int weight = scanner.nextInt();

      if(weight<=30){//if statements to go through the conditions and the cost according ot weight
         System.out.println("the price to send letter is 48 cents");
      }else if(weight<=50){
         System.out.println("the price to send letter is 70 cents");

      }else if(weight<=100){
          System.out.println("the price to send letter is 90 cents");

      }else if(weight>100){// finds the extra weight of the letter first. Then divides it by 50 to see
how many instances of the 18 cent increase we need. Then adds the 90-cent fee and prints it.
         int extra= weight-100;
         int chunksofweight = (extra + 49)/50;
         int extramoney= 18*Math.round(chunksofweight);
         int cost=extramoney + 90;
         System.out.println("the cost to send letter is "+ cost + " cents");


         }


   }
}
```