```
    int num1;

    boolean Prime=true;

    Scanner scan= new Scanner(System.in);

    System.out.println("Enter any number:");

    int num=scan.nextInt();
```

The first lines of code is usually for the input section of the ipo the code asks for the user to enter a number through using a scanner. Then the code uses a boolean variable called prime equals to true to let the code continue if the user followed the requirement the prime + true is used later in the process process.

```
 for(int i=2;i<=num/2;i++)
{


    num1=num%i;
   if(num1==0)
   {
       Prime =false;



   }
}
```

The ⅔ of the code is using the loop (for) in the beginning to have the number in the form (num) the variable of the user's input is processed by having requirements such as being divisible by 2. Then if the variable (i) is less than or equal to num divided by zero is allowed to be in the for loop. In the for loop there's a If statement that sets another path by having the (num1) equal to 0 lets the loop have a boolean variable to display the num to be not a prime number.

```
  if(Prime)
    System.out.println(num + " is a Prime Number");
 else
    System.out.println(num + " is not a Prime Number");
}
```

This is just the output having a number that has been processed into the for loop if the for loop is prime number then it skipped past the if statement if the number isn’t a prime number then it goes through if statement and be output through the else statement as the (prime = false).