```java
import java.lang.Math;
import java.util.Scanner;

public class Factors {

        public static void main(String[] args) {

                int numberOfFactors = 0;
                int counter = 1;

                Scanner input = new Scanner ( System.in);
                System.out.println("Please input a whole number to find out "
                                + "the factors and wheter it is a prime number.");
                if (input.hasNextInt());
                {
                        int number = input.nextInt();

                        double rootOfNumber = Math.sqrt(number);

                System.out.println("The factors of "+number+" are ");

                while ( counter <= rootOfNumber)
                {
                        int ifFactors = number % counter;
                        if ( ifFactors == 0)
                        {
                                int factor1 = number / counter;
                                int factor2 = number / factor1;
                                System.out.print(factor2+"x"+factor1+" ");
                                numberOfFactors++;
                        }
                        counter++;
                }

                        if ( numberOfFactors > 1)
                        {
                                System.out.println("\n"+number+" is not a prime number");
                        }
                        else
                        {
                                System.out.println("\n"+number+" is a prime number");
                        }
                }
                if (input.hasNext())
                {
                        System.out.println("Plese make sure that you submited "
                                        + "a number and that it is in decimal form.");
                }


                input.close();
        }

}
```