Kotlin Assignment

1) Class and objects

a. Write a class in kotlin named "Rectangle" with the methods "area", "perimeter" and "diagonal".

Test Case:

```kotlin
fun main(){
  var shape1=Rectangle(10,6)
  println("Area of the rectangle is ${shape1.area()}")            //60
  println("Perimeter of the rectangle is ${shape1.perimeter()}")  //32
  println("Diagonal of the rectangle is ${shape1.diagonal()}")    //11.661..
}
```

b. Write a class in kotlin named "SpongeBob" with a method "mockingText" which returns the input text as mocking spongebob text.

Hint: You can use In-built function ".random()"

Eg:

```kotlin
fun main(){
    var f = SpongeBob()
    println(f.mockingText("abcdefghijklmnopqrstuvwxyz"))
    // aBCdeFGHIjklmnOPQrsTUvWXYZ
}
```

c. Write a Kotlin class named "Parenthesis" with a method "isValid" which returns true if the given string of parenthesis is balanced or false otherwise

Eg:

```kotlin
fun main(){
  var stringOne = Parenthesis("{((()]}")      //false
  var stringtwo = Parenthesis("{[[({})]]}")   //true
  println(stringOne.isValid())
  println(stringTwo.isValid())
}
```

d. Write a kotlin class named "Converter" with a method "IntToRoman" which takes an Integer argument and returns a string of roman numeral

Eg:

```kotlin
fun main(){
    var f = Converter()
    println(f.IntToRoman(1234))  //MCCXXXIV
    println(f.IntToRoman(84))    //LXXXIV
    println(f.IntToRoman(3452))  //MMMCDLII
}
```