

02161: Software Engineering 1

4.1 Systematic tests

Given the following code that tests whether a number a is prime or not. A number is prime, if it is greater than 1 and only dividiable by itself or 1.

```
public class Primes {  
    public static boolean isPrime(int n) {  
        if (n <= 1) { // 1  
            return false; // 1a  
        }  
        for (int i = 2; i < n; i++ ) { // 2  
            if (n % i != 0) { // 3  
                return false; // 3a  
            }  
        }  
        return true; // 4  
    }  
}
```

- a Devise a set of white-box partition tests for this method using two tables (similar to what we have done in the lecture). The first table describes the input partitions, and the second table describes the test cases.
 - Submit the two tables as a PDF file to huba@dtu.dk.
- b Implement the class Primes and the JUnit tests corresponding to the table of the test cases from part *a* of this exercise.
 - What is the code coverage for the isPrime method reported by Eclemma?
 - Do the tests pass? If not, fix the code, so that the tests pass.
 - Submit the Eclipse project as Zip file to huba@dtu.dk