 Registration Number: _____

In-class Test 1

MSc/ICY Software Workshop

Assessed In-class Test: 10% of the continuous assessment mark.

Submission: Friday, 6 November 2015, 9:50 hours
No late submission

Usual examination conditions apply. You may not use any material during this in-class test.

Exercise 1: (Basic, 30%)
What does the method `mystery` return for the three different values of `n` below?

```
public static int mystery(int n) {
    int i = 0;
    int result = 0;
    while (i <= n) {
        i++;
        result += i*i;
    }
    return result;
}
```

n	return value
0	
2	
-2	

Exercise 2: (Medium, 40%)

A class `CinemaTicket` has the field variables `price`, `film`, `startTime`, and `screen` (the first of type `double`, the others of type `String`). Write the following parts of the class `CinemaTicket`:

(a) a `constructor`

(b) a `getter` for the `screen`

(c) a `setter` for the `price`

(d) a `toString` method, listing the `price`, the `startTime`, and the `screen`.

Exercise 3: **(Advanced, 30%)**

Write a method

```
public static double maximalRowSum(double[][] a)
```

that computes the maximal sum we get by summing up each row of the array `a` separately.

For instance, for the array

```
a = {{1.0, 2.0, 3.0, 4.0},
     {1.0, 0.0, 0.0, 0.0},
     {0.0, 0.0, 0.0, 0.0}}
```

we get for the rows 0, 1, and 2 the sums 10.0, 1.0, and 0.0, respectively. The maximum of this is 10.0, that is, in this case the method should return 10.0.