

Lab7 Grover's searching algorithm

Exercise 1

Explain the role of Oracle in Grover's algorithm

Exercise 2

Solve assignment described in <http://www.lassp.cornell.edu/mermin/qcomp/prob6.pdf>

Exercise 3

Implement and test the solution of exercise 2 in the simulator

Exercise 4

Run full Grover simulation from the [file](#).

Please note: in order to view amplitudes of register x state add the following code after Oracle and Inverse functions (to be shown during the lab):

```
//this Hadamard gates are only for viewing purposes !
```

```
y.Hadamard(0);
```

```
// here we can view amplitudes in simulator
```

```
Console.WriteLine("After Oracle/Inverse:");
```

```
Console.WriteLine(x);
```

```
//going back to the algorithm
```

```
y.Hadamard(0);
```