TD 0 - Install Rodin and First Proofs

Exercice 1. Installing Rodin. If not done yet, install Rodin from [http://www.event-b.org/install.html](http://www.event-b.org/install.html). In the meantime do the next exercises. Once Rodin is installed, navigate to the menu Help -> Install New Software in order to install the plugins:
- "Atelier B provers"
- "SMT Solvers"
- "ProB for Rodin 3"

Exercice 2. Proving programs 1. Write a short C-function

```c
float arrayMax(float * A, int size)
```

which computes the maximal value stored in the array, i.e. such that for every array `a` of size `n`,

```
arrayMax(A, n) = \max_{0 \leq i < n} A[i]
```

Prove that your implementation is correct.

Exercice 3. Proving programs 2. Let `bool isSorted(float * A, int size)` be a function which checks that the input is sorted in increasing order.
- Write a formula which defines what the function `isSorted` is supposed to compute.
- Provide an implementation;
- Prove that your implementation is correct.

Exercice 4. Proving programs 3. Same exercise than previous for a function `bool inArray(float * A, int size, float x)` which checks whether `x` appears in the array `A`.