

## ASSIGNMENT 1

1. Consider the fuzzy set of *high speeds for racing cars*.
  - a. Model it properly, by plotting the membership function and commenting on your choice (2 points).
  - b. Determine the support, core and height of the fuzzy set above (2 points).
  - c. Show and comment on the intersection of the fuzzy set above and the fuzzy set of non-high speeds (1 point).
2. Write a pseudocode for the addition of two finite fuzzy numbers by the Extension principle (6 points). Note: in case you prefer it, the pseudocode can be replaced by a Scilab code.
3. Show an example of a set-relation composition with a finite fuzzy set representing *medium* and a fuzzy relation *much smaller than*. Elaborate on the outcome (see also section 3.2.1 textbook). You can use the code shared in Practice 3 to get the numerical result (3 points).