

# Definitional interpreters - homework

Krzysztof Wróbel

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There are two exercises in this list but you are supposed to choose only one of them. The first exercise is easier and therefore for its solution you can get maximally 3.0. If you want to get 5.0, you have to solve the second one.

You are allowed to use any of the functional programming languages with the restriction that imperative features and higher-order functions are forbidden. Please send your solutions to [strzkrzysiek@gmail.com](mailto:strzkrzysiek@gmail.com) by the end of April.

1. Write a fully defunctionalized interpreter in the continuation-passing style that implements right-to-left order of evaluation.  
(Maximal grade: 3.0)
2. Write a fully defunctionalized interpreter in the continuation-passing style that implements call-by-name strategy of evaluation. Show an example that it indeed works correctly. To start with, you can look for *call-by-name CPS transformation* in the Internet.  
(Maximal grade: 5.0)

I have attached source code (in Scheme) of four interpreters presented during the seminar. You may find them helpful.