

Mathematics 346m programming assignments 2, Michaelmas 2017

October 20, 2017

1 Second assignment, due midnight Friday 27/10

Under `sample_programs` on the course web page is a file `redblack.c`. You are to fill in the details of `rotate` and `fix_double_red` to make the program make correct insertions into a redblack tree. The program will delete nodes incorrectly (`fix_rank_deficit` doesn't exist).

Only a week is given for this assignment. Sorry, it took some time to set it up. Only two routines need be written. The 'rotate' routine should be written as carefully as 'fix double red.'

The rest of the program, handling insert commands, etcetera, is already there. The program can display trees, in text, so as to exhibit their structure. If you run the program unchanged it will insert nodes and report many double red errors.

Data is stored as `test_ass_02` and sample output as `ass_02_output`, all in the subdirectory `sample_programs`.