

**MATH 650 Fall 2015 Piterbarg  
Homework 1, August, 24**

**Due: September 2**

1. Install either S-plus or R at your PC or make an appropriate directory at SCF, RCF.
2. Generate two samples  $x$  and  $y$  with  $n=10$  from  $N(0,1)$  and find the difference of the means. Generate two samples  $x$  and  $y$  with  $n=10$  from  $N(0,1)$  and  $N(2,1)$  respectively and find the difference of the means. In both examples try  $t$  test( $x,y$ ) to test the hypothesis of the mean equality. Briefly comment on the results.
3. Conceptual Exercises 1-15, p.22-23

**Turn in only Part 2. Your printout should include both, the code and output.**