

**Problem 0: Homework checklist**

For equation  $f(x) = e_{-x} - x = 0$

$f(0) = 1$  and  $f(1) = e_{-1} - 1 < 0$ . Also function  $f(x)$  is continuous monotonic decreasing function. Therefore there must be a root on the interval  $(0, 1)$