

Automated Theorem Proving, SS 2017. Homework 3 (due May 3, 2017)

0. Remaining exercises from previous homework.
1. Identify the constants, variables (free, bound), quantifiers, functions, predicates, atoms, terms, formulas from the bellow:

(a) $\forall_x x + 1 \geq x$

(b) $\neg \left(\exists_x E[0, f[x]] \right)$

(c) $\forall_x \exists_y \left(E[y, f[x]] \wedge \forall_z (E[z, f[x]] \Rightarrow E[y, z]) \right)$

Note: For solving this exercise you may want to check the slides from <http://staff.ieat.ro/~merascu/links/SS2017ATP/FirstOrderLogicSlides.pdf>.