

Quiz3

1. (10) Prove that equality $\varphi_i = \varphi_j$ of partial recursive functions is undecidable.
2. (10) Show that the *time-bounded while*-programs are primitive recursive.

The time-bounded programs are defined as follows.

For any while loop **while** $x \neq y$ **do** e **done**, the number of loop iterations is bounded by some primitive recursive function $g(x, y)$.

