Assignment 2, Math 3TP3
Due Feb. 9, in the Avenue dropbox

1. Suppose that f and g are effectively computable functions from $\mathbf{N}$ to $\mathbf{N}$. Show that $f \circ g$ is also effectively computable.

2. Think about how the real numbers might be presented and ask yourself if the property of being greater than 0 or greater than or equal to 0 should be thought of as decidable.

3. Describe an algorithm for determining if a string of symbols in L_A is a term.

4. Write down formulas in L_A that express the relations:

   (a) $x < y$,

   (b) x is a perfect square, and

   (c) x is a power of 2.