

Assignment 2, Math 3TP3

Due Feb. 11, in class

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.