

In computability theory, a set of natural numbers is called recursive, computable or decidable if there is an algorithm which terminates after a finite amount of time and correctly decides whether or not a given number belongs to the set. A more general class of sets consists of the recursively enumerable sets, also called semidecidable sets. For these sets, it is only required that there is an algorithm that correctly decides when a number is in the set; the algorithm may give no answer (but not the wrong answer) for numbers not in the set. A set which is not computable is called noncomputable or undecidable.