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Computability theory of function composition

We will discuss the relationship between function composition and the computability-theoretic complexity of functions (their *partial degree*). We fully characterize the possible degrees of $g \circ f$ in terms of the degrees of f and g . We also consider the problem of "splitting over composition": Given a function h , what are the possible degrees of functions f and g for which $g \circ f = h$? We will discuss some new results, natural examples, and application to computable structure theory.