Summary of Language Decision Problems

Various results concerning decision problems are summarized in the table below. An entry 'D' denotes that the problem is decidable for members of the category, 'U" denotes that it is undecidable, and 'NA' indicates that decidability is not applicable.

Language category	$x \in L$	$L = \varnothing$	L infinite	$L = \Sigma^*$	$L_1 \cap L_2 = \varnothing$	$L_1 = L_2$	Ambig
Reg	D	D	D	D	D	D	D
DCF	D	D	D	D	U	U	NA
CF	D	D	D	U	U	U	U
CS	D	U	U	U	U	U	NA
total Turing recog	D	U	U	U	U	U	NA
partial Turing recog (PS)	U	U	U	U	U	U	NA