

Query semantic	Type of graph $G = (V, E)$	Regular Grammar R	CFG $C = (\Sigma, N, P, S)$	Conjunctive grammar	CSG
shortest path	general graph	$O(R G \log(R G))$	FP		undecidable
simple path	directed chain	$O(V)$	$O(V ^3)$		PSPACE-complete
	treewidth bounded	FP	NP-complete		PSPACE-complete
	planar/grid graph	NP-complete	NP-complete		PSPACE-complete
relational	general graph		$O(N E + (N V)^3)$	undecidable	
subgraph	acyclic graph		$O(V ^3 m^3)$		
single-path	general graph		$O(f)$		
all-path	general graph		$O(N E + (N V)^3)$		