

Clique Problem

max-clique (G, n, k)

G : graph

n : vertices

k : clique no

Algo:

$S = \emptyset$

for $i = 1$ to k :

$t = \text{choice}(1 \dots n)$

if $t \in S$

return false

$S = S \cup t$

for all pairs (i, j) such that $i \in S$

and $j \in S$ and $i \neq j$:

if (i, j) is not an edge

return false

return true

→ no polynomial time