

# CS140 - Group Assignment 11

Due: Friday, November 22nd at 10pm

1. Pick one of the reductions that we went over in class and review it as a group.

2. CLIQUE

Although  $\text{CLIQUE} = \{\langle G, k \rangle \mid G \text{ has a clique of size } k\}$  is an NP-complete problem, specific instances can be solved in polynomial time.

- Why is CLIQUE solvable in polynomial time if  $G$  is a tree?
- Why is CLIQUE solvable in polynomial time if  $k = 3$ ?

3. Are there any topics, examples, questions from the semester that you would like to go over again in our last class? (The more specific you are the more likely it is that I can prepare helpful materials in advance!)

4. What was your favorite topic of the course? Least favorite?