Problem 2.1. (0.25 pt) Prove that the following problem is in uniform NC: **input**: *n* numbers of length *n*, written in binary (the input consists of n^2 bits); **question**: is there a subset of these numbers whose sum is exactly *n*?

Problem 2.2. (0.25 pt) Prove that the following problem is **NP**-complete: **input**: a context-free grammar *G*;

question: does *G* allow a derivation in which all non-terminals are used?