

# CS311 Homework 8

0 points, 20 points per problem

## Problem 1

Prove or disprove:  $P \subseteq NP$

## Problem 2

Consider problem 9-13 from the text.

- (a) Prove that Hitting Set  $\in$  NP.
- (b) Prove that Hitting Set is hard for NP.
- (c) Prove that Hitting Set is complete for NP.

## Problem 3

Do problem 9-10 from the text.

## Problem 4

Do problem 9-16 from the text.

## Problem 5

Do problem 9-24 from the text.