Math 1007 Fall 2026
Mathematics and Politics
Homework 1
Due on Blackboard
Tuesday, September 1

Name:

Make sure to explain why all your answers are correct! Remember that you should be making short persuasive arguments. (This explanation can take the form of showing calculations, or of a couple sentences of writing, depending on the question.)

(1) Consider the simple majority method for a multi-candidate election: "Any candidate who gets a majority of the votes is a winner". Explain why (and by what specific part of the definition) this is not a social choice function for a multi-candidate election.

(2) Do *The Mathematics of Politics* problem 2.2 parts (a) through (d)

(3) Do *The Mathematics of Politics* problem 2.4

(4) Do *The Mathematics of Politics* problem 2.8