

Math 1007 Spring 2026  
Mathematics and Politics  
Homework 2      Due on Blackboard  
Tuesday, Jan 27 at 4:45 PM

**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) Do *The Mathematics of Politics* problem 1.2

(2) Consider the bloc profile with five blocs:

A	A	A	B	B	B	B	A	A	A	A	B
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(a) Who wins under the simple majority method?

(b) Who wins if each bloc gets one vote?

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(c) Who wins if each bloc gets a number of votes equal to the size of the bloc?

(d) We got very lucky in being able to answer the previous two questions. Which of these five blocs is likely to cause a problem unless I specify more information?

(3) Do *The Mathematics of Politics* problem 1.4

(4) Do *The Mathematics of Politics* problem 1.8