

Math 1007 Spring 2026
Mathematics and Politics
Homework 10 Due on Blackboard
Tuesday, April 14 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 14.8
- (2) Consider the game

2	1	-1
-2	-1	5
1	-1	3

Show that Column's strategy $Q = (1/5, 1/2, 3/10)$ is a neutralizing strategy. What is the expected value of Row's payoff?

- (3) (15 points) Consider the game

3	2	1
1	4	3
3	1	5

Name: _____

Show that the pair of strategies $P = (1/2, 3/10, 1/5)$ and $Q = (1/2, 2/5, 1/10)$ is a Nash equilibrium.

What is the value of the game?

(4) Do *The Mathematics of Politics* problem 15.2