

Instructor: Leo Goldmakher

NAME: _____

Williams College
Department of Mathematics and Statistics

MATH 250 : GALOIS THEORY

Problem Set 0 – due Thursday, February 11th

INSTRUCTIONS:

Please submit this to the appropriate box to the *left* of my office door (215B): the top box is for Section 1 (10am), the bottom for Section 2 (11am).

- (1) What's your name? Class year? Major (potentially)?
- (2) Which college-level math courses have you taken? When did you take them?
- (3) Have you taken a linear algebra course before?
- (4) Circle the option which best describes how familiar you are with each concept:
 - (a) Mathematical induction
 - Never seen it.
 - Seen it, but don't remember exactly what it is.
 - Vaguely remember what it is, but probably wouldn't be able to use it right now.
 - Could do some simple examples right now, but probably not more complicated stuff.
 - I'm very comfortable with it.
 - (b) Polar coordinates
 - Never seen it.
 - Seen it, but don't remember exactly what it is.
 - Vaguely remember what it is, but probably wouldn't be able to use it right now.
 - Could do some simple examples right now, but probably not more complicated stuff.
 - I'm very comfortable with it.
 - (c) Matrices and matrix multiplication
 - Never seen it.
 - Seen it, but don't remember exactly what it is.
 - Vaguely remember what it is, but probably wouldn't be able to use it right now.
 - Could do some simple examples right now, but probably not more complicated stuff.
 - I'm very comfortable with it.

- (d) Solving linear equations using matrices
- Never seen it.
 - Seen it, but don't remember exactly what it is.
 - Vaguely remember what it is, but probably wouldn't be able to use it right now.
 - Could do some simple examples right now, but probably not more complicated stuff.
 - I'm very comfortable with it.
- (e) Rational versus irrational numbers
- Never seen it.
 - Seen it, but don't remember exactly what it is.
 - Vaguely remember what it is, but probably wouldn't be able to use it right now.
 - Could do some simple examples right now, but probably not more complicated stuff.
 - I'm very comfortable with it.
- (f) Injective / surjective / bijective functions
- Never seen it.
 - Seen it, but don't remember exactly what it is.
 - Vaguely remember what it is, but probably wouldn't be able to use it right now.
 - Could do some simple examples right now, but probably not more complicated stuff.
 - I'm very comfortable with it.
- (g) The complex plane
- Never seen it.
 - Seen it, but don't remember exactly what it is.
 - Vaguely remember what it is, but probably wouldn't be able to use it right now.
 - Could do some simple examples right now, but probably not more complicated stuff.
 - I'm very comfortable with it.
- (h) What are you hoping to get out of this class / why are you taking this class?
- (i) What extracurricular teams or groups are you a part of?

SCHEDULING FOR TA SESSIONS:

As described in class and on the syllabus, TAs will meet with four students at a time to hand back and give feedback on problem sets. (Note: the TAs will *not* meet with students prior to problem sets being due, only afterwards!) These meetings will take place Saturday–Tuesday. Please circle the block of time below which you would prefer for your TA meeting, and cross out the times which are impossible for you. (Your actual meeting will only take up 30 minutes of the time block.)

Saturday: 4–5

Sunday: 7–8pm

Monday: 7:30–9pm

Tuesday: 8–9pm

If none of the above are possible, please suggest a one hour block (Saturday–Tuesday) you would prefer.