

# Midterm portfolio's self-evaluation

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The purpose of this questionnaire is twofold: to document your progress in the course so far and then to guide you through a self-evaluation of your work.

Both the instructor and the TA will read your submission carefully. We'll schedule a short meeting with you on Friday, February 9<sup>th</sup>.

Edit this file in MS Word or other word processor of your choice (such as GoogleDocs). *Please answer the questions using the word processor. Take your time and consider each question carefully. Answering the whole questionnaire might take a couple of hours. Save the result as a PDF.*

Save as PDF solutions to **three problems** that you would like to highlight for their quality. (These might be the solutions you submitted or improved versions of them, if that applies.)

Put all the files in a single PDF ([you can use this tool](#)): first this questionnaire, followed by the selected solutions. The result is your *final portfolio* (any other relevant information will be read directly from Canvas). Upload your portfolio to Canvas.

## Some general questions

1. Read again your beginning-of-term reflection.
  - a. Has your thinking about the course content changed since the semester started?  
How?
  - b. Has your thinking about your own goals changed since the semester started?  
How?
2. Has your understanding of the term "chaos" changed in the last few weeks? How? Is this important? Why?
3. If you had to explain to someone who's not a mathematician the concept of "bifurcation", in nontechnical terms, what would you say?
4. What are the advantages of working with symbolic dynamics? What do you think are the main limitations of the method?
5. Which topic(s) would you like to focus on in the last few weeks of the course?

## An overview of your work

First, describe your level of familiarity with the following concepts, both at the beginning of the term and at the moment of answering this question. Use the following numerical scale in the relevant columns:

0. No knowledge
1. Vague notions
2. Precise but basic knowledge (only enough for simple problems)
3. Intermediate knowledge
4. Mastery

Then use the last columns to list all the exercises submitted so far that relate to the concept.

Concept	Beginning of term	Present	Relevant exercises
Graphical orbit analysis			
Stability of fixed and periodic points (1D)			
Bifurcations			
Sharkovskii's theorem			
Cantor set			
Symbolic dynamics			
(Semi-)Conjugation			
Chaos			
Stable and unstable directions at a fixed point (2D)			
Toral automorphisms			

Based on the information above, answer the following:

1. How would you rate the learning that has taken place so far? Choose one:

*Poor / Satisfactory / Good / Extraordinary*

Justify.

2. Are you satisfied with your progress? Why? Be concrete.
3. Which concepts need some additional work? Why?

Then answer the following questions:

1. Approximately how many lectures have you missed? \_\_\_\_
2. How have you compensated these absences?
3. How engaged and mentally present have you been in class?
  - \_\_\_ There and ready to go all the time.
  - \_\_\_ Sometimes engaged and sometimes distracted.
  - \_\_\_ pretty remote
4. How many hours of timed, focused and structured work for the course have you done so far?
5. How many hours of untimed or unfocused or unstructured work?
6. How many hours have you worked in total?

7. How many problem solutions have you submitted so far (out of 8; including this week)?
8. How many weekly reports have you submitted so far (out of 3; excluding this week)?
9. What percentage of your submissions have taken place before the deadline?
10. How many peer reviews did you complete?
11. How would you evaluate the quality of the feedback that you gave?
12. *For each* of the three solutions that you're selecting and attaching to this questionnaire, explain why you think it is a good solution and what aspect(s) of your learning it reflects.
13. Describe a challenge that you've faced so far in the course and how you've overcome it.

## Some feedback

1. In a scale of 1 to 5, where 5 is the maximum, how exciting has this course been?
2. What do you think about the feedback that you have received from the instructor?
3. How have the interactions with your peers influenced your learning?
4. What do you hope to get out of the remainder of the semester?
5. Are there things you'd like clarified? Elaborated?
6. Are there things you would like the instructor to help with?
7. Have you become curious about anything new?
8. What was your initial reaction to the lack of focus on grades? How do you feel about it now?
9. Have you made a new friend?
10. Have you thought about the ways you learn? Have you observed anything that you might take forward with you?

Other comments:

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## Grade

*Please consider criteria such as learning progress, time and effort invested, quality and quantity of the solutions that you've submitted, responsiveness to feedback, contributions to peer's learning, engagement in collaborative problem solving, and any other criterion that you consider relevant.*

Suggest a letter grade for yourself: \_\_\_\_\_

Explain how you arrived at this grade:

Based on your self-assessment, which actions do you plan to take to improve in the second part of the course?