This worksheet explains what we are going to cover this week, and is meant to help you plan how to work with the material. Please consult the first worksheet for more detailed explanations.

**Schedule:** New this week are online Q&A sessions between 13 and 17, most weekdays. Note that all groups are to meet their mentors once this week (you have to schedule this yourselves).

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<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
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<th>Thursday</th>
<th>Friday</th>
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<td>08:15-10:00</td>
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<tr>
<td>10:15-12:00</td>
<td>Lecture Linear Algebra</td>
<td>Lecture Analysis</td>
<td>Problem seminar Analysis</td>
<td>Lecture Linear Algebra</td>
<td>Problem seminar Analysis</td>
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<td>12:00-13:00</td>
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<td>13:15-15:00</td>
<td>Problem seminar Linear Algebra</td>
<td>Q&amp;A sessions</td>
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<td>15:15-17:00</td>
<td>Q&amp;A sessions</td>
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<td>Q&amp;A sessions</td>
<td>Lecture Analysis</td>
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**Rotating schedule:** You are invited to lectures according to the following rotating schedule. Although 49 students is the maximum for each session, we know from experience that not everyone will show up – which is why we are "overbooking". However, as a precautionary measure, you will need to confirm your invitation for next week by clicking here (hopefully we won’t have to do this every week).

- **Tuesday:** Mentor groups 1 – 8 (58 invited students)
- **Wednesday:** Mentor groups 9 – 16 and 201 (57 invited students)
- **Friday:** Mentor groups 1 – 8 (58 invited students)

**Obligatory activities related to this week:**

- **Confirm invitation to class.** Deadline is Sunday 6 September. In case more than 49 students accept for, say, Tuesday, then group 8 will be bumped to Wednesday etc...  
- **Group-wise presentation of problems in problem seminar.** About half of the mentor groups invited to campus will be required to present a problem. See below for details.
- **Mentor meeting.** Each group is to have a compulsory meeting with their mentors this week. It is up to each group to schedule when this meeting is to take place. A theme for this meeting is to get LaTeX up and running on your computers. Also, you may want to schedule the meeting ahead of your presentation...
- **Homework 1 published:** This will happen on Monday. Deadline is Friday next week.
How and what to prepare: The setup this week is slightly different from the first week. Please refer to the first worksheet for information on what resources are available to help you complete these tasks. (Make sure you read "how to prepare for lecture" at the very end of the sheet!)

Tuesday 8/9:
- **Pages to read before lecture:** Do a first reading of pages 107 – 129. The goal is to get acquainted with the material, and identify the parts you find difficult and those that you find less difficult.
- **Films available on YouTube:**
  - Inverting a function (2.25, 2.27, 2.28, 2.29), 12:09 min.
  - On the addition formulas for the trigonometric functions (2.37, 2.38a), 8:23 min.
  - The absolute value function (2.45, 2.46), 8:46 min.
  - The definition of the logarithm (2.51, 2.52), 3:54 min.
  - Example for inverse trigonometric functions (2.59), 7:11 min.
  - The complex exponential function (2.71, 2.72, 2.73), 6:46 min.
  - Determining complex roots (2.78), 6:49 min.
- **Problems to work on:** Figure out which problems you think are easy, and which you find hard. Some problems are mainly meant to help you read the text actively. In this chapter, the following exercises should be suitable as "reading exercises":
  - 2.12ab, 2.14, 2.16, 2.20, 2.26ab, 2.35, 2.42, 2.43, 2.44, 2.55, 2.56, 2.65, 2.74, 2.79, 2.83.

Wednesday 9/9:
- **Pages to read before problem session:** 107 – 119.
- **Problems to work on:**
  - 2.1: 2.4, 2.6-7, 2.12c, 2.15, 2.19, 2.23, 2.26c, 2.30, 2.31, 2.33, 2.32a.
  - 2.2: 2.36, 2.38bc, (2.38de), 2.39-40, 2.48.
- **Problems to present:** (Each group should spend 5-10 minutes in total.)
  - Mentor group 9: 2.18
  - Mentor group 10: 2.24
  - Mentor group 11: 2.47
  - Mentor group 12: 2.49

Friday 10/9:
- **Pages to read before problem session:** 120 – 129.
- **Problems to work on:**
  - 2.2: 2.54.
  - 2.3: 2.57-58, (2.61), 2.62, 2.67, 2.70, 2.75, 2.80, 2.84.
- **Problems to present:** (Each group should spend 5-10 minutes in total.)
  - Mentor group 1: 2.53
- Mentor group 2: 2.60
- Mentor group 3: 2.68
- Mentor group 4: 2.76, 2.77

**How to prepare for lecture:** Look over your notes from this week, and determine what parts you understand the least. Try to formulate some questions and post them on Piazza using the tag "PS W37" (stands for "Problem seminar Week 37"). Please take a look at the already posted questions in order to avoid duplicates.