

Week: October 19 – October 25 , 2020

## Topic: Sequences and functions

The below provided instructions should guide you through studying the topic. For additional explanation, clarification and extra material contact the Lecture/Tutorial teacher by email or the MS-Teams platform for live online consultation (see webpage for the link).

[https://mat.nipax.cz/mathematics:mathematics\\_i](https://mat.nipax.cz/mathematics:mathematics_i)

1) Read and learn the explanation from the textbook (**pages 46-61**).

Scanned pages can be found (starting from Monday, 19<sup>th</sup> of October) on the web page.

[https://mat.nipax.cz/media/mathematics:ma1\\_en\\_textbook\\_part\\_ii.pdf](https://mat.nipax.cz/media/mathematics:ma1_en_textbook_part_ii.pdf)

Additional material and alternative explanation with many figures and exercises can be found in (free) online available textbooks

<http://www.math.wisc.edu/~keisler/calc.html>

<https://openstax.org/details/books/calculus-volume-1>

namely chapter 1 <https://openstax.org/books/calculus-volume-1/pages/1-introduction>

and chapter 2 <https://openstax.org/books/calculus-volume-1/pages/2-introduction>

You may also take a look at

<https://openstax.org/details/books/college-algebra>

namely chapter 3-6 <https://openstax.org/books/college-algebra/pages/3-introduction-to-functions>

chapter 9 <https://openstax.org/books/college-algebra/pages/9-introduction-to-sequences-probability-and-counting-theory>

2) As a training solve (at least) the specified exercises from *Selected problems from the textbook Problems in Mathematics I*

[https://mat.nipax.cz/media/m1\\_selected\\_problems.pdf](https://mat.nipax.cz/media/m1_selected_problems.pdf)

Sequences: **581, 591, 612, 621**

Functions: **660, 687, 768, 796**

See the *plan of tutorials* for full list of recommended exercises

[https://mat.nipax.cz/media/mathematics:ma1\\_2020\\_tutorials\\_info.pdf](https://mat.nipax.cz/media/mathematics:ma1_2020_tutorials_info.pdf)

3) Try to solve the corresponding exercises and answer the questions from older exams.

[https://mat.nipax.cz/media/m1\\_probl\\_from\\_prev\\_exams.pdf](https://mat.nipax.cz/media/m1_probl_from_prev_exams.pdf)

*This should be your check point to verify if you understood the chapter sufficiently to pass the exam.*

*In case you want to verify your results and answers, or need additional explanation, consultation or study material, contact your teacher (tutorial or lecture).*

4) As a long term homework, to be delivered by parts (by chapters) according to deadlines specified by the tutorial teacher, solve the corresponding exercises from

[https://mat.nipax.cz/media/mathematics:ma1\\_exam\\_1\\_en.pdf](https://mat.nipax.cz/media/mathematics:ma1_exam_1_en.pdf)

[https://mat.nipax.cz/media/mathematics:ma1\\_exam\\_2\\_en.pdf](https://mat.nipax.cz/media/mathematics:ma1_exam_2_en.pdf)

[https://mat.nipax.cz/media/mathematics:ma1\\_exam\\_3\\_en.pdf](https://mat.nipax.cz/media/mathematics:ma1_exam_3_en.pdf)

**DEADLINE: October 30, 2020 for the first part of the homework (1st exercise from Exam 1, 1st and 2nd exercise from Exam 2 and Exam 3).**