

# Homework for MAT 118

## Mathematical Thinking

### Fall 2016

Each week you will be assigned 5–7 problems on the Blackboard. These problems will be from the course book and can be found at the end of the corresponding chapters. It is recommended that you read the corresponding material before doing homework. Also there will be some extra suggested problems which are not for grading (your textbook contains answers to most of those). Only some of the problems will be graded by your TAs, but you do not know which ones, and are supposed to solve all of them.<sup>1</sup>

**Homework is due by the end of next Wednesday’s lecture or can be handed at your recitation before. No late homework would be accepted.**

- Homework 1 (due September 7).  
Assigned problems to be submitted: 1.1.6, 1.2.14, 1.3.24, 1.4.34, 1.5.44, 1.6.56.  
Suggested exercises: 1.1.8, 1.2.18, 1.3.28, 1.4.38, 1.5.48, 1.6.58.
- Homework 2 (due September 14).  
Assigned problems to be submitted: 2.1.2, 2.1.8, 2.1.10b, 2.2.14, 2.2.18a, 2.2.22, 2.2.26.  
Suggested exercises: 2.1.3, 2.1.5, 2.1.9, 2.2.13, 2.2.17(b), 2.2.23, 2.2.25.
- Homework 3 (due September 21).  
Assigned problems to be submitted: 3.1.6, 3.1.8, 3.2.18, 3.3.26, 3.3.32, 3.4.36.  
Suggested exercises: 3.1.5, 3.1.7, 3.2.17, 3.3.23, 3.3.31, 3.4.35.
- Homework 4 (due September 28).  
Assigned problems to be submitted: 5.2.4, 5.2.8, 5.2.14, 5.3.32, 5.3.36, 5.3.40, 5.4.44.  
Suggested exercises: 5.2.1, 5.2.7, 5.2.13, 5.2.21, 5.3.29, 5.3.35, 5.3.41, 5.4.45.
- Homework 5 (due October 12).  
Assigned problems to be submitted: 6.2.2, 6.2.8, 6.2.12, 6.2.16, 6.3.28, 6.4.36, 6.5.52.  
Suggested exercises: 6.2.3, 6.2.9, 6.2.11, 6.2.15, 6.3.29, 6.4.41, 6.5.51.
- Homework 6 (due October 19).  
Assigned problems to be submitted: 7.1.4, 7.2.22, 7.2.26, 7.3.34, 9.1.4, 9.2.22, 9.2.34.  
Suggested exercises: 7.1.8, 7.2.21, 7.2.27, 7.3.38, 9.1.7, 9.1.11, 9.2.23, 9.2.33.
- Homework 7 (due October 26).  
Assigned problems to be submitted: 9.3.50, 9.4.54, 9.4.60, 10.1.6, 10.1.14, 10.1.18.  
Suggested exercises: 9.3.49, 9.4.61, 10.1.5, 10.1.13, 10.1.19.
- Homework 8 (due November 4).  
Assigned problems to be submitted: 10.2.22, 10.2.26, 10.3.36, 10.3.48, 10.4.54, 10.4.60.  
Suggested exercises: 10.2.21, 10.2.25, 10.3.35, 10.3.47, 10.4.53, 10.4.59.
- Homework 9 (due November 9).  
Assigned problems to be submitted: 11.2.2, 11.2.8, 11.3.14, 11.3.18, 11.4.28.

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<sup>1</sup> The problems which were graded are underlined.

Suggested exercises: 11.2.1, 11.2.9, 11.3.13, 11.3.19, 11.4.27.

- Homework 10 (due November 16).

Assigned problems to be submitted: 13.1.10, 13.1.14, 13.1.18, 13.2.34, 13.2.36, 13.3.44, 13.3.54.

Suggested exercises: 13.1.7, 13.1.13, 13.1.17, 13.2.33, 13.2.35, 13.3.43, 13.3.53.

- Homework 11 (due December 2).

Assigned problems to be submitted: 16.1.2, 16.1.14, 16.2.20, 16.2.28, 16.3.34, 16.3.40.

Suggested exercises: 16.1.3, 16.1.15, 16.2.19, 16.2.23, 16.3.33, 16.3.39, 16.4.59, 16.4.63.

- Homework 12 (due December 9).

Assigned problems to be submitted: 16.3.52, 16.3.54, 16.4.60, 16.4.64, 16.5.66, 16.5.72.

Suggested exercises: 16.3.51, 16.3.53, 16.4.57, 16.4.63, 16.5.67, 16.5.71.