

Discrete Mathematics and Graphs

Rules of the exam

Academic Year 21/22

Assessment (zápočet)

Requirements: Solving the homeworks and scoring at least 10 points from the midterm.

The midterm test will be written and consisting of four parts, with max. gain 24 points:

1. propositional and predicate logic (max. gain 6 points);
2. binary relations (max. gain 6 points);
3. sets and functions (max. gain 6 points);
4. solving a Diophantine equation (max. gain 6 points).

There will be three sheets of homeworks (in weeks 5, 9, 13). Each sheet contains mandatory exercises and optional ones. It is necessary to solve all mandatory exercises, that will be corrected (but not graded). The optional exercises will be corrected and graded.

The points obtained in the optional exercises and from the midterm will add points to the grade of the written exam.

Final exam

In order to be admitted to the exam, it is necessary to have obtained the assessment.

The final exam contains two parts - a written part (obligatory) and an oral part (not obligatory). The written test will consist of 6 problems, max. gain 90 points, with 120 minutes allowed for solving them.

Oral part

The oral part will look at theory and can bring from -10 to $+20$ points; it can be taken by those who gained at least 45 points in the written part.

- Students who obtained less than 50 points from written exam and midterm will be asked to solve more exercises and we will then pass to theoretical questions on the whole program.

- Students whose written exam is already sufficient, but want to improve their grade, can choose 3 chapters out of Chapters 2, 3, 4, 6 and the oral exam will only concern these chapters. Since you are investigated on a smaller part of the program of your choice, I expect from you a good understanding of the theory (expect proofs and several ‘why?’).

Grading

The resulting grade is based on three inputs. S is the number of points brought from the optional exercises and the midterm (max. gain 12 points); P is the number of points from the written part; and U is the number of points from the oral part (if a student chooses not to take the oral exam, then $U = 0$).

1. If a student gained less than 45 points from the written test, the student failed the exam.
2. If a student gained 45 or more points from the written test, then the student can take an oral exam.

The grade is then determined by the total $P + S + U$ and the following key:

total	grade
0–49	F (failed)
50–59	E (sufficient)
60–69	D (satisfactory)
70–79	C (good)
80–89	B (very good)
> 89	A (excellent)