

Mathematics 2 – Test 1

Date: 4th April, 2019, Noon

Room: Informatics Building 102

Possible types of exercises:

- (1) Partial differentiation of functions of two variables.
- (2) Finding the local extrema of functions of two variables.
- (3) Integration of functions of one and two variables.
- (4) Determining whether a system of vectors is linearly dependent or independent.
- (5) Determining the coordinates of a vector in \mathbb{R}^n with respect to a basis of \mathbb{R}^n .
- (6) Matrix operations: addition, multiplication by a scalar, matrix multiplication.
- (7) Calculating the determinant of a square matrix.
- (8) Finding the inverse of a square matrix.
- (9) Solving systems of linear equations.
- (10) Calculating the norms and the (cosine of the) angle of 2 given vectors in \mathbb{R}^n .