

Symbols used

$\mathbb{N}$	the set of natural numbers
$\mathbb{Z}$	the set of integers
$\mathbb{Q}$	the set of rational numbers
$\mathbb{C}$	the set of complex numbers
$M_{m,n}(\mathbb{F})$	the set of all $m \times n$ matrices with entries in F
$P_n(x)$	the set of all polynomials of degree at most n
$P(x)$	the set of all polynomials
$\mathbb{R}^{[0,1]}$	the set of real-valued functions defined on $[0, 1]$
$C(\mathbb{R}^{[0,1]})$	the set of continuous real valued functions on $[0, 1]$
$D(\mathbb{R}^{[0,1]})$	the set of differentiable real valued functions on $[0, 1]$ and
$\mathcal{R}(\mathbb{R}^{[0,1]})$	the set of Riemann integrable functions on $[0, 1]$
$\langle S \rangle$	the subspace generated by S
$UT(M_{n,n}(F))$	the set of all upper triangular matrices of order $n \times n$
$LT(M_{n,n}(F))$	the set of all lower triangular matrices of order $n \times n$
$S(M_{n,n}(F))$	the set of all n -square symmetric matrices
$[T]_{B_1, B_2}$	the matrix of the linear transformation T related to the ordered bases B_1 and B_2
$L_A : F^n \rightarrow F^m$	the left multiplication linear transformation

