1. $\mathbb{R}^{m\times n}$ is the space we denoted by $M_{m\times n}(\mathbb{R})$.

2. $M_n(\mathbb{R})$ is used for what we would write as $M_{n\times n}(\mathbb{R})$.

3. $U^{2\times 2}$ is used for the vector space of 2×2 upper triangular matrices.

4. $C^n(\mathbb{R})$ is the vector space of all real-valued functions defined on $\mathbb{R}$ which have continuous n-th derivatives; $C^n(I)$ is used for the same kind of functions, but defined on $I = [0, 1]$ rather than $\mathbb{R}$.

5. $C^0[0, 1]$ is the same space as the one we denoted by $C([0, 1])$.

6. In some questions $P_n, \mathbb{P}_n$ or $P_n(x)$ is used to denote the set of polynomials of degree less than n. When this is done, the question will make it clear. If nothing is said, $P_n, \mathbb{P}_n$ or $P_n(x)$ means the set of polynomials of degree less than or equal to n, as usual.

7. The coordinate vector of an element of a vector space with respect to a basis for the vector space is sometimes referred to as the coordinates of the element.

8. A linear transformation is sometimes also called an operator. If T is a linear transformation from a finite-dimensional vector space V with basis B into itself, the matrix representing T with respect to the basis B in both the domain and codomain of T is sometimes denoted by $[T]_B^B$ or simply $[T]_B$, and is called the matrix of T relative to B.

9. The standard basis for $\mathbb{R}^n$ is sometimes denoted by E.

10. The image of a linear transformation is what we called the range of the linear transformation.

11. $\exp(2t)$ is another way of writing e^{2t}.