three chapters the fundamental concepts of solid mechanics along with introductions to the mathematical theories of elasticity, plasticity and viscoelasticity are presented. Ch. 4 is devoted to an exposition of theories of nonlinear creep in a uniaxial state of stress and corresponding fundamental experimental results; while, in the following chapter, several possible ways of describing isotropic and anisotropic creep are considered and a selection among these is made on the basis of agreement with the experimental results that are available for this case. Ch. 6 presents a review of criteria, mostly restricted to the case of a uniaxial stress state, for the long term failure of materials. In Ch. 7 the general theory of steady state creep is given and certain methods of approximation are introduced; while in the following three chapters application is made to bending and torsion, plane axisymmetric problems and plates and shells. In Ch. 11 problems of transient creep are treated while in Ch. 12 methods of solving certain geometrically nonlinear problems including buckling and stability problems, are described. Finally, there is a bibliography of almost four hundred references.

The book is written in a clear and lucid style.

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Linear algebra and matrix theory, by E. D. Nering. xii+352 pages. 2nd ed., Wiley , New York, 1970. U.S. $10.95.

This book, in its general conception the same as the first edition (1963), tries to do justice to two of the competing methods of teaching linear algebra; the modern algebraic method built on the axiomatic introduction of a vector space and the approach through coordinates, using matrices as representatives of linear homogeneous transformations, bilinear and quadratic forms. After a thorough treatment of the usual material geometrical aspects are dealt with only in the last chapter (VI) to serve as a background for a brief treatment of linear inequalities and linear programming, communication theory, calculus of vector valued functions, linear differential equations, oscillations of mechanical systems, and finally, representation theory of finite groups with applications to symmetric mechanical systems. From this list it is clear that the book cannot possibly be entirely self sufficient. Indeed at the end of each section one finds references to more specialized works.

The reader is evidently not meant to be a newcomer to this kind of mathematics or to mathematics in general. The style is concise and to the point. Illustrative examples often refer to other parts of mathematics. There are plenty of exercise examples with some answers put together at the end of the book. It is a work book which can serve as a text or companion to many courses on linear algebra.

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