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Sommario/riassunto	John Vince explains a wide range of mathematical techniques and problem-solving strategies associated with computer games, computer animation, virtual reality, CAD and other areas of computer graphics in this completely revised and expanded fifth edition. The first five chapters cover a general introduction, number sets, algebra, trigonometry and coordinate systems, which are employed in the following chapters on vectors, matrix algebra, transforms, interpolation, curves and patches, analytic geometry and barycentric coordinates. Following this, the reader is introduced to the relatively new topic of geometric algebra, followed by two chapters that introduce differential and integral calculus. Finally, there is a chapter on worked examples. Mathematics for Computer Graphics covers all of the key areas of the subject, including: · Number sets · Algebra · Trigonometry · Coordinate systems · Determinants · Vectors · Quaternions · Matrix algebra · Geometric transforms · Interpolation ·

Curves and surfaces · Analytic geometry · Barycentric coordinates · Geometric algebra · Differential calculus · Integral calculus This fifth edition contains over 120 worked examples and over 320 colour illustrations, which are central to the author's descriptive writing style. Mathematics for Computer Graphics provides a sound understanding of the mathematics required for computer graphics, giving a fascinating insight into the design of computer graphics software and setting the scene for further reading of more advanced books and technical research papers.