

1. Record Nr.	UNINA9910798064503321
Autore	Barry Patrick D.
Titolo	Geometry with trigonometry / / Patrick D. Barry
Pubbl/distr/stampa	Cambridge, England : , : Woodhead Publishing, , 2016 ©2016
ISBN	0-12-805067-5
Edizione	[Second edition.]
Descrizione fisica	1 online resource (282 p.)
Disciplina	516
Soggetti	Geometry - Study and teaching Trigonometry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover ; Geometry with Trigonometry ; Copyright ; Dedication ; Contents ; About the author ; Preface ; Glossary ; 1. Preliminaries ; 1.1 Historical note ; 1.2 Note on deductive reasoning ; 1.3 Euclid's the elements ; 1.4 Eur approach ; 1.5 Revision of geometrical concepts ; 1.6 Pre-requisites ; 2. Basic shapes of geometry ; 2.1 Lines, segments and half-lines ; 2.2 Open and closed half-planes ; 2.3 Angle-supports, interior and exterior regions, angles ; 2.4 Triangles and convex quadrilaterals ; Exercises ; 3. Distance; degree-measure of an angle ; 3.1 Distance ; 3.2 Mid-points ; 3.3 A ratio result ; 3.4 The cross-bar theorem ; 3.5 Degree-measure of angles ; 3.6 Mid-line of an angle-support ; 3.7 Degree-measure of reflex angles ; Exercises ; 4. Congruence of triangles; parallel lines ; 4.1 Principles of congruence ; 4.2 Alternate angles, parallel lines ; 4.3 Properties of triangles and half-planes ; Exercises ; 5. The parallel axiom; euclidean geometry ; 5.1 The parallel axiom ; 5.2 Parallelograms ; 5.3 Ratio results for triangles ; 5.4 Pythagoras' theorem, c. 550b.c. ; 5.5 Mid-lines and triangles ; 5.6 Area of triangles, and convex quadrilaterals and polygons ; Exercises ; 6. Cartesian coordinates; applications ; 6.1 Frame of reference, cartesian coordinates ; 6.2 Algebraic note on linear equations

6.3 Cartesian equation of a line 6.4 Parametric equations of a line ; 6.5 Perpendicularity and parallelism of lines ; 6.6 Projection and axial symmetry ; 6.7 Coordinate treatment of harmonic ranges ; Exercises ; 7. Circles; their basic properties ; 7.1 Intersection of a line and a circle ; 7.2 Properties of circles ; 7.3 Formula for mid-line of an angle-support ; 7.4 Polar properties of a circle ; 7.5 Angles standing on arcs of circles ; 7.6 Sensed distances ; 8. Translations; axial symmetries; isometries ; 8.1 Translations and axial symmetries
8.2 Isometries 8.3 Translation of frame of reference ; Exercises ; 9. Trigonometry; cosine and sine; addition formulae ; 9.1 Indicator of an angle ; 9.2 Cosine and sine of an angle ; 9.3 Angles in standard position ; 9.4 Half angles ; 9.5 The cosine and sine rules ; 9.6 Cosine and sine of angles equal in magnitude ; 10. Complex coordinates; sensed angles; angles between lines ; 10.1 Complex coordinates ; 10.2 Complex-valued distance ; 10.3 Rotations and axial symmetries ; 10.4 Sensed angles ; 10.5 Sensed-area ; 10.6 Isometries as compositions
10.7 Orientation of a triple of noncollinear points
