

**A KEY TO THE
EXERCISES IN ELEMENTS
OF GEOMETRY**

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A Key to the Exercises in Elements of Geometry by J. Hamblin Smith

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J. HAMBLIN SMITH

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TO
THE EXERCISES
IN
ELEMENTS OF GEOMETRY

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TABLE OF REFERENCE TO THE EXERCISES IN
THE ELEMENTS OF GEOMETRY.

	Page in Key.
EXERCISES ON PROPOSITIONS IN BOOK I.	1—31
MISCELLANEOUS EXERCISES ON PROPOSITIONS I. TO XII.	4
MISCELLANEOUS EXERCISES ON PROPOSITIONS I. TO XXVI.	12
MISCELLANEOUS EXERCISES ON SECTIONS I. AND II.	18
EXERCISES ON DEFINITIONS OF PARALLELOGRAMS, ETC.	21
MISCELLANEOUS EXERCISES ON PROPOSITIONS XXXIV. TO XLV.	27
EXERCISES ON PROPOSITIONS IN BOOK II.	32—34
MISCELLANEOUS EXERCISES ON BOOK II.	34
EXAMPLES OF <i>Loci</i> (page 104)	39
MISCELLANEOUS EXERCISES ON BOOKS I. AND II.	39
EXERCISES ON PROPOSITIONS IN BOOK III.	54—68
MISCELLANEOUS EXERCISES ON BOOK III.	68
EXERCISES ON PROPOSITIONS IN BOOK IV.	86—88
MISCELLANEOUS EXERCISES ON BOOK IV.	88
SENATE-HOUSE RIDERS ON BOOKS I. TO IV.	94
EXERCISES ON PROPOSITIONS IN BOOK VI.	124—141
MISCELLANEOUS EXERCISES ON PROPOSITIONS I. TO VI.	128
MISCELLANEOUS EXERCISES, CHIEFLY ON PROPOSITION XIX.	136
MISCELLANEOUS EXERCISES ON BOOK VI.	141
MISCELLANEOUS EXERCISES ON BOOK XI.	179
SENATE-HOUSE RIDERS ON BOOKS VI. XI. AND XII.	187

NOTE.

A SMALL number of Riders and Problems in the Edition of my *Elements of Geometry* published in 1880 will be replaced by other Exercises in future Editions. The following List points out the Exercises in the Edition of 1880 of which no solution is given in this book :—

Page.	Exercise.		Page.	Exercise.
63	2		274	5
64	2		274	8
66	1		295	19
118	33		297	40
119	34		298	48
119	39		299	59
119	44		302	84
127	Ex.		303	91
148	Ex. 1		305	105
174	47		306	115
174	49			

J. HAMBLIN SMITH.

CAMBRIDGE, April 1880.

KEY TO ELEMENTARY GEOMETRY.

Page 12.

EXERCISE 1. Let F be the other point in which the circles intersect. Draw the straight lines AF, BF .

Then $\because A$ is the centre of $\odot BFD$,

$$\therefore AF = AB;$$

and $\because B$ is the centre of $\odot AFE$,

$$\therefore BF = AB.$$

$\therefore AF = BF$, and ABF is an equilateral Δ .

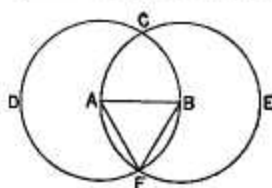


FIG. 1.

EX. 2. Let AB, CD be two given straight lines, of which AB is the less.

Draw the straight line $AE = CD$, and with centre A and distance AE describe $\odot EFH$.

Produce AB to meet the \odot in H .

Then $AH = AE$, and $\therefore AH = CD$.

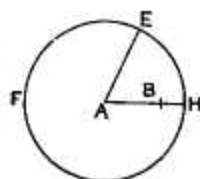


FIG. 2.

EX. 3. With centre B and distance BC describe $\odot CDE$, and from B draw any line BD to meet the \odot in D .

Then $BD = BC$.

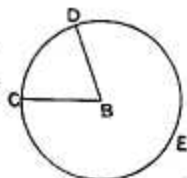


FIG. 3.