

Geometry

with **CalcChat**[®] and **CalcView**[®]

Practice Workbook and Test Prep

- Extra Practice
- Review & Refresh
- Self-Assessments
- Test Prep
- Post-Course Test



Erie, Pennsylvania

Copyright © by Big Ideas Learning, LLC. All rights reserved.

Permission is hereby granted to teachers to reprint or photocopy in classroom quantities only the pages or sheets in this work that carry a Big Ideas Learning copyright notice, provided each copy made shows the copyright notice. These pages are designed to be reproduced by teachers for use in their classes with accompanying Big Ideas Learning material, provided each copy made shows the copyright notice. Such copies may not be sold and further distribution is expressly prohibited. Except as authorized above, prior written permission must be obtained from Big Ideas Learning, LLC to reproduce or transmit this work or portions thereof in any other form or by any other electronic or mechanical means, including but not limited to photocopying and recording, or by any information storage or retrieval system, unless expressly permitted by copyright law. Address inquiries to Permissions, Big Ideas Learning, LLC, 1762 Norcross Road, Erie, PA 16510.

Big Ideas Learning and *Big Ideas Math* are registered trademarks of Larson Texts, Inc.

Printed in the United States

ISBN 13: 978-1-64727-071-1

123456789—24 23 22 21 20

Contents

	About the Practice Workbook and Test Prep.....	viii
Chapter 1	Basics of Geometry	
1.1	Points, Lines, and Planes.....	1
1.2	Measuring and Constructing Segments	3
1.3	Using Midpoint and Distance Formulas	5
1.4	Perimeter and Area in the Coordinate Plane.....	7
1.5	Measuring and Constructing Angles.....	9
1.6	Describing Pairs of Angles	11
	Chapter Self-Assessment	13
	Test Prep.....	15
Chapter 2	Reasoning and Proofs	
2.1	Conditional Statements	19
2.2	Inductive and Deductive Reasoning	21
2.3	Postulates and Diagrams	23
2.4	Algebraic Reasoning	25
2.5	Proving Statements about Segments and Angles.....	27
2.6	Proving Geometric Relationships	29
	Chapter Self-Assessment	31
	Test Prep.....	33
Chapter 3	Parallel and Perpendicular Lines	
3.1	Pairs of Lines and Angles	37
3.2	Parallel Lines and Transversals.....	39
3.3	Proofs with Parallel Lines	41
3.4	Proofs with Perpendicular Lines	43
3.5	Equations of Parallel and Perpendicular Lines	45

Contents

	Chapter Self-Assessment	47
	Test Prep	49
Chapter 4	Transformations	
4.1	Translations.....	53
4.2	Reflections	55
4.3	Rotations	57
4.4	Congruence and Transformations.....	59
4.5	Dilations.....	61
4.6	Similarity and Transformations	63
	Chapter Self-Assessment	65
	Test Prep	67
Chapter 5	Congruent Triangles	
5.1	Angles of Triangles.....	71
5.2	Congruent Polygons.....	73
5.3	Proving Triangle Congruence by SAS	75
5.4	Equilateral and Isosceles Triangles	77
5.5	Proving Triangle Congruence by SSS	79
5.6	Proving Triangle Congruence by ASA and AAS.....	81
5.7	Using Congruent Triangles.....	83
5.8	Coordinate Proofs	85
	Chapter Self-Assessment	87
	Test Prep	89
Chapter 6	Relationships Within Triangles	
6.1	Perpendicular and Angle Bisectors.....	93
6.2	Bisectors of Triangles	95

Contents

6.3	Medians and Altitudes of Triangles	97
6.4	The Triangle Midsegment Theorem	99
6.5	Indirect Proof and Inequalities in One Triangle	101
6.6	Inequalities in Two Triangles	103
	Chapter Self-Assessment	105
	Test Prep.....	107
Chapter 7	Quadrilaterals and Other Polygons	
7.1	Angles of Polygons	111
7.2	Properties of Parallelograms	113
7.3	Proving That a Quadrilateral Is a Parallelogram.....	115
7.4	Properties of Special Parallelograms	117
7.5	Properties of Trapezoids and Kites	119
	Chapter Self-Assessment	121
	Test Prep.....	123
Chapter 8	Similarity	
8.1	Similar Polygons	127
8.2	Proving Triangle Similarity by AA.....	129
8.3	Proving Triangle Similarity by SSS and SAS.....	131
8.4	Proportionality Theorems	133
	Chapter Self-Assessment	135
	Test Prep.....	137
Chapter 9	Right Triangles and Trigonometry	
9.1	The Pythagorean Theorem.....	141
9.2	Special Right Triangles.....	143
9.3	Similar Right Triangles.....	145

Contents

9.4	The Tangent Ratio	147
9.5	The Sine and Cosine Ratios.....	149
9.6	Solving Right Triangles.....	151
9.7	Law of Sines and Law of Cosines	153
	Chapter Self-Assessment.....	155
	Test Prep	157

Chapter 10 **Circles**

10.1	Lines and Segments That Intersect Circles.....	161
10.2	Finding Arc Measures.....	163
10.3	Using Chords	165
10.4	Inscribed Angles and Polygons	167
10.5	Angle Relationships in Circles	169
10.6	Segment Relationships in Circles	171
10.7	Circles in the Coordinate Plane	173
10.8	Focus of a Parabola.....	175
	Chapter Self-Assessment.....	177
	Test Prep	179

Chapter 11 **Circumference and Area**

11.1	Circumference and Arc Length	183
11.2	Areas of Circles and Sectors.....	185
11.3	Areas of Polygons.....	187
11.4	Modeling with Area.....	189
	Chapter Self-Assessment.....	191
	Test Prep	193

Contents

Chapter 12 Surface Area and Volume

12.1	Cross Sections of Solids.....	197
12.2	Volumes of Prisms and Cylinders.....	199
12.3	Volumes of Pyramids.....	201
12.4	Surface Areas and Volumes of Cones	203
12.5	Surface Areas and Volumes of Spheres.....	205
12.6	Modeling with Surface Area and Volume	207
12.7	Solids of Revolution.....	209
	Chapter Self-Assessment	211
	Test Prep.....	213

Chapter 13 Probability

13.1	Sample Spaces and Probability.....	217
13.2	Two-Way Tables and Probability	219
13.3	Conditional Probability	221
13.4	Independent and Dependent Events.....	223
13.5	Probability of Disjoint and Overlapping Events.....	225
13.6	Permutations and Combinations	227
13.7	Binomial Distributions.....	229
	Chapter Self-Assessment	231
	Test Prep.....	233
	Post-Course Test	237

About the Practice Workbook and Test Prep

Extra Practice

The Extra Practice exercises provide additional practice on the key concepts taught in each section.

Review & Refresh

The Review & Refresh exercises provide students the opportunity to practice prior skills to improve retention.

Self-Assessments

For every section and chapter, students can rate their understanding of the learning targets and success criteria.

Test Prep

Each chapter contains a cumulative test to prepare students for standardized test questions, including multiple choice, multi-select, gridded response, and fill-in-the-blank.

Post-Course Test

The Post-Course Test measures students' understanding of all content in this course. This assessment is designed to prepare students for standardized test questions, including multiple choice, multi-select, gridded response, and fill-in-the-blank.