
3 PARALLEL LINES AND PLANES

When Lines and Planes Are Parallel

3-1	<i>Definitions</i>	73
3-2	<i>Properties of Parallel Lines</i>	78
3-3	<i>Proving Lines Parallel</i>	83

Applying Parallel Lines to Polygons

3-4	<i>Angles of a Triangle</i>	93
3-5	<i>Angles of a Polygon</i>	101
3-6	<i>Inductive Reasoning</i>	106

Technology Explorations 78, 89, 99 Calculator Key-In 109

Special Topics Application/Technical Drawing 90 Career/Carpenter 100

Reviews and Tests Mixed Review Exercises 82 Self-Tests 89, 110

Chapter Summary 110 Chapter Review 111 Chapter Test 112

Algebra Review/The Coordinate Plane 113 Cumulative Review 114

4 CONGRUENT TRIANGLES

Corresponding Parts in a Congruence

4-1	<i>Congruent Figures</i>	117
4-2	<i>Some Ways to Prove Triangles Congruent</i>	122
4-3	<i>Using Congruent Triangles</i>	127

Some Theorems Based on Congruent Triangles

4-4	<i>The Isosceles Triangle Theorems</i>	134
4-5	<i>Other Methods of Proving Triangles Congruent</i>	140

More about Proof in Geometry

4-6	<i>Using More than One Pair of Congruent Triangles</i>	146
4-7	<i>Medians, Altitudes, and Perpendicular Bisectors</i>	152

Technology Explorations 134, 158

Special Topics Challenges 121, 139 Application/Bracing with Triangles 133

Reviews and Tests Mixed Review Exercises 121, 151

Self-Tests 132, 146, 159 Chapter Summary 159 Chapter Review 160

Chapter Test 162 Algebra Review/Quadratic Equations 163

Preparing for College Entrance Exams 164 Cumulative Review 165