

- Theorems**, 23
 writing proofs of, 43–45
See pp. 692–693 for list of theorems
- Thinking Skills**
 Analysis, *see* Patterns;
 Problem solving; and
 Reasoning, valid and
 flawed
 Applying Concepts, *see*
 Applications, Calculator
 Key-In, Computer Key-
 In, and Mathematical
 modeling
 Classification, *see*, for
 example, 93,
 186 (Cl. Exs. 1–4),
 187 (Exs. 1–10)
 Interpreting, *see* Patterns,
 Problem solving, and
 Reading Geometry
 Reasoning, *see* Deductive
 reasoning, Explorations,
 Hypothesis, Inductive
 reasoning, Logic,
 Probability, Proof, and
 Venn diagrams
 Recall and transfer, *see*
 Applications,
 Mathematical modeling,
 Mixed Review Exercises,
 and Problem solving
 Spatial perception, *see*
 Constructions, Diagrams,
 Drawing geometric
 figures, Model, and
 Visualization
 Synthesis, *see* Conditional,
 Conjunction, Disjunction,
 Problem solving, and Proof
- Three-dimensional**
 coordinate system, 716
- Tiling of the plane**, 657
- Topology**, 275–276
- Transformations**, 572
 composites or products of,
 599–602, 605–606
 fixed point of, 605
 identify, 605
 integrating into Chapters 3–
 13, 657–675
 inverse of, 606, 617
Translation, 583–584, 601,
 657
 inverse of, 605–606
Transversal, 74
Trapezoid, 190–191
 altitude of, 435
 area of, 435
 bases of, 190
 height of, 435
 isosceles, 190
 legs of, 190
 median of, 191
Triangle(s), 93, 101
 acute, 93, 296
 altitudes of, 152, 386–387
 angle bisector(s) of, 270,
 386
 angles of, 93–95
 area of, 429, 434, 456,
 465–466
 centroid of, 387, 391
 circumcenter of, 387, 669
 classification of, 93
 concurrent lines in, 386–
 387
 congruent, 117–163
 equiangular, 93, 94, 135,
 136
 equilateral, 93, 135, 136
 exterior angles of, 95, 204
 45° – 45° – 90° , 300
 incenter of, 387, 669
 isosceles, 93, 134–136
 medians of, 152, 386–387
 obtuse, 93, 296
 orthocenter of, 387, 669
 overlapping, 140
 remote interior angles of,
 95
 right, 93, 94, 141, 285–325
 scalene, 93
 segment joining midpoints
 of two sides, 178,
 267 (Ex. 22)
 sides of, 93
 similar, 254–256, 263–264
 sum of measures of angles,
 21 (Ex. 25), 94, 657
 30° – 60° – 90° , 300–301
 vertex of, 93
See also Congruent
 triangles, Isosceles
 triangles, Right triangles
- Trigonometry**, 305–320, 722–724
 table of values, 311
- Trisection of angle**, 99,
 399 (Ex. 18)
- Truth table**, 644–647
- Undefined terms**, 5
- Uniqueness**, 23
- Vectors**, 539–541
- Venn diagrams**, 208–209
- Vertex**
 of angle, 17
 of cone, 493
 of polygon, 101
 of pyramid, 482
 of triangle, 93
- Visualization**, 4,
 8 (Exs. 19, 20),
 9 (Exs. 29–36),
 77 (Ex. 22),
 194 (Challenge),
 260 (Challenge),
 485 (Exs. 7–16), 565
- Volume**, 476, 503, 516–517
 approximating, 489 (Ex. 2),
 496, 498–499,
 501 (Ex. 28), 504
 cone, 491
 cylinder, 490–491, 496
 maximum, 481, 502, 515
 prism, 476–477
 pyramid, 483–484
 sphere, 497–498, 504