

- Congruence**, 13, 117–163,  
330, 340  
and area, 465–466  
and mappings, 572–573  
properties of, 37  
*See also* Congruent figures,  
Congruent triangles,  
Constructions
- Congruent triangles**, 117–  
163  
methods of proof, 122–123,  
140–141  
using, 127–129, 146–147
- Conjunction**, 644
- Constructions**, 375–418  
angle congruent to a given  
angle, 376  
bisector of an angle, 376  
circumscribed and inscribed  
circles, 393–394  
division of a segment into a  
given number of  
congruent parts, 396  
equilateral triangle, 377  
a fourth segment in a  
proportion when three  
segments are given, 397  
geometric mean of two  
segments, 397  
and locus, 410–411  
nine-point circle, 414–415,  
670 (Ex. 4)  
paper folding, 710–715  
parallel to a line through a  
given point, 382  
perpendicular bisector of a  
segment, 380  
perpendicular to a line *at* a  
given point, 381  
perpendicular to a line *from*  
a given point, 381  
segment congruent to a  
given segment, 375  
tangent to a circle *at* a  
given point, 392  
tangent to a circle *from* a  
given point, 393  
*See p. 701 for list of  
constructions*
- Contraction**, 592
- Contrapositive**, 208
- Converse**, 33, 208
- Coordinate(s)**, 11, 27, 113,  
523, 716
- Corollary**, 94
- Cosine ratio**, 312, 722
- Counterexample**, 33
- Critical Thinking**,  
*see* Thinking Skills
- Cube**, 127, 309 (Ex. 28)
- Cumulative Review**, 71, 114,  
165, 200, 239, 281, 327,  
372, 421, 472, 521, 569,  
622
- Cylinder(s)**, 490–493  
lateral area, 490–491  
oblique, 490, 517  
right, 490  
volume, 490–491, 496, 517
- Decagon**, 101
- Deduce**, 38
- Deductive reasoning**, 45, 106
- Definitions**  
basic, 5–6, 11, 13, 17, 19  
if-then form, 34
- Density property of real  
numbers**, 14 (Ex. 14)
- Depression**, angle of, 317
- Diagonal**  
of polygon, 102  
of solid, 293
- Diagrams**  
drawing, 19, 38, 61, 90–91  
reading, 19, 38  
Venn, 208–209  
*See also* Drawing geometric  
figures
- Diameter of circle**, 329
- Dilation**, 592–594, 664  
inverse of, 606
- Discrete Math**, 676–683  
*See also* Algorithm;  
Computer Key-In;  
Electrical circuits; Euler's  
formula; Group; Inductive  
reasoning; Logic;  
Networks; Probability;  
geometric; Proof(s);  
Relation, equivalence;  
Steiner's Problem
- Disjunction**, 644
- Dissection**, 666 (Ex. 9), 671,  
672 (Exs. 6, 7)
- Distance**  
between two points, 11–12,  
523–524, 717  
from a point to a line (or  
plane), 154, 663  
to the horizon, 367–368
- Dodecagon**, 44 (Ex. 21)
- Drawing geometric figures**  
plane, 5, 9  
space, 8, 77, 485, 492, 493
- Drawings**  
scale, 248, 262  
isometric, 90  
technical, 90–92
- Edges, lateral**  
of prism, 475  
of pyramid, 482
- Electrical circuits**, 653–654
- Elevation**, angle of, 317
- Endpoints**, 11
- Equality**  
properties of, 37  
of vectors, 540
- Equations(s)**  
of circle, 524–525  
of line, *see* Linear  
equations  
quadratic, 163  
solving, 38  
systems of, 69, 667
- Equidistant**, 2
- Equivalent**  
logically, 208, 651  
topologically, 275
- Estimation**, 4  
of angle measures,  
20 (Exs. 7–12),  
21 (Exs. 19–22)  
*See also* Applications,  
distance
- Euclid**, 233, 299 (Ex. 2)  
proof from, 150 (Ex. 14)
- Euler, Leonard**, 332, 506, 676
- Euler circuit**, 676–678
- Euler's formula**, 506
- Euler's line**, 556, 563, 669
- Examinations**, 626–639
- Expansion**, 592
- Explorations**, 78, 89, 99,  
134, 158, 176, 189, 195,  
225, 254, 268, 298, 310,  
338, 361, 385, 392, 433,  
552, 576
- Exponents, rules of**, 534
- Extra**  
Cavalieri's Principle, 516–  
517  
Congruence and Area, 465  
Möbius Bands, 66  
Networks, 332  
Nine-Point Circle, 414–415  
Non-Euclidean Geometry,  
233–234  
Points in Space, 565  
Symmetry Groups, 615–617  
Topology, 275–276