

**GLENCOE CORRELATION**  
**GEOMETRY**  
**OKLAHOMA**  
Priority Academic Student Skills  
Mathematics Content Standards  
Geometry

CONTENT STANDARDS	PAGE REFERENCES
<b>Standard 1: Logical Reasoning - The student will use deductive and inductive reasoning to solve problems.</b>	
1. Properties and Relationships of Figures	
a. Identify the relationships of parallel lines with a transversal.	SE: 126-130, 133-137, 144 #57-#61, 167 #8-#15, 168 #16-#22 <i>Geometry Software Investigation</i> 132 TWE: DI 134 OEA 131, 138 TNT 128
b. Identify relationships between pairs of angles (e.g., adjacent, complementary, vertical).	SE: 37-43, 50 #40-#41, 56 #38-#41, 107-113, 120 #55-#58, 133-137 TWE: DI 39, 134 OEA 43
2. Determine and use the relationships of congruency and similarity to determine unknown values.	SE: 192-197, 289-297, 300 ex 3, 301 #4-#5, 302 #18-#21, 315 #52-#53, 318 ex 4, 319 #5-#7, 331 #48-#51, 334 #25-#26
3. Use logical reasoning skills (inductive and deductive) to make and test conjectures, formulate counter examples, follow logical arguments, judge the validity of arguments and construct simple valid arguments.	SE: 62-66, 67-74, 75-80, 82-86, 89-93, 100 #40-#42, 106 #35-#38, 115 #9-#11 TWE: DI 64 OEA 66
<b>Standard 2: Properties of 2- and 3-Dimensional Figures - The student will use the properties and formulas of geometric figures to solve problems.</b>	
1. Polygons	
a. Identify and describe polygons (e.g., convex, concave, regular).	SE: 45-50, 56 #42-#44, 66 #45-#47 TWE: DI 48 OEA 50 TTT 46
b. Apply the interior and exterior angle sum of convex polygons to solve problems.	SE: 404-409, 416 #52-#55, 423 #51-#56, 452 #9-#14, 457 #20 <i>Spreadsheet Investigation</i> 410 TWE: DI 407 GA 406 OEA 409 TTT 405
c. Develop and apply the properties of quadrilaterals to solve problems (e.g., rectangles, parallelograms, rhombi, trapezoids, kites).	SE: 411-416, 423 #47-#50, 424-430, 431-437, 439-444, 453 #15-#20 TWE: CC 441 DI 413, 426 OEA 416
2. Draw and analyze 2- and 3-dimensional figures.	SE: 7 ex 3, 8 ex 4, 444 #37-#38, 636-642 <i>Construction</i> 207, 425, 433 <i>Reading Mathematics</i> 12

CONTENT STANDARDS	PAGE REFERENCES
3. Use properties of 2- and 3-dimensional figures to determine unknown values (e.g., given the perimeter/circumference, find the area).	SE: 48 ex 4, #10, 49 #29-#31, 179 ex 3, 180 #9-#10, 405 ex 2, 407 #8-#9, 524 ex 4, 604 ex 4, 605 #10-#11, 701 #34
4. Compute length, perimeter or circumference, area, volume, and surface area of geometric figures with missing information and correctly identify the appropriate unit of measure of each.	SE: 48 ex 4, #10, 425 ex 4, 526 #13-#14, 599 #32-#34, 604 ex 4, 605 #10-#11, 688-694, 696-701, 702-706
5. Use geometric tools (e.g., protractor, compass, straight edge) to construct a variety of figures.	SE: 160 ex 2 <i>Construction</i> 15, 24, 31, 151, 311, 425, 433 <i>Geometry Activity</i> 438, 559
6. Find angle measures and arc measures related to circles.	SE: 529-534, 543 #54-#56, 551 #51-#52, 582 #17-#28, 587 #8-#11, 588 #7 TWE: DI 531 OEA 535
<b>7. Chords, Secants, and Tangents</b>	
a. Identify and describe the relationship between two chords that intersect in the interior of a circle.	SE: 569-570, 572 #4, 573 #22-#23, 580 #51, 585 #48, 587 #14, #19
b. Identify and describe the relationship between two secants that intersect in the exterior of a circle.	SE: 561-567, 570 ex 3, 572 #6, 573 #27, 580 #52, 585 #44-#46, #49, 587 #15-#16
c. Identify and describe the relationship between a secant and a tangent that intersect in the exterior of a circle.	SE: 561-567, 571 ex 4, 572 #5, 573 #24, 585 #47, 587 #13
<b>Standard 3: Coordinate Geometry - The student will solve problems with geometric figures in the coordinate plane.</b>	
1. Use transformations (reflection, rotation, translation) within coordinate geometry (e.g., reflect points across the <i>y</i> -axis).	SE: 194 ex 2, 196 #22-#25, 463-469, 470-474, 476-481, 488 #42-#45, 497 #60-#61, 506-511 TWE: OEA 469, 475
2. Use coordinate geometry to find the distance between two points; the midpoint of a segment; and to calculate the slopes of parallel, perpendicular, horizontal, and vertical lines.	SE: 21-27, 36 #52-#54, 43 #50-#55, 139-144, 150 #57-#58, 154 ex 4, 157 #62-#64, 169 #23-#28, 171 #13-#14, 182 #40
3. Given a set of points determine the type of figure based on its properties (e.g., parallelogram, isosceles triangle, regular octagon).	SE: 415 #37-#39, 420 ex 5, 422 #25-#32, 426 ex 4, 429 #27-#32, 432 ex 5, 434 #20-#23, 437 #53-#56, 440 ex 3, 442 #9-#12
<b>Standard 4: Angles, Triangles and Similar Polygons - The student will use the properties of angles, right triangles, and similar polygons to solve problems.</b>	
1. Solve problems using properties of angles (e.g., interior, exterior, complementary, vertical, angle sums, 30-60-90).	SE: 37-43, 56 #38-#41, 57 #19-#20, 58 #7-#8, 59 #17, 185-191, 782 #14-#15 <i>Geometry Activity</i> 184 TWE: OEA 191
2. Use the Pythagorean Theorem and its converse to find missing side lengths and to determine acute, right, and obtuse triangles.	SE: 350-356, 393 #13-#15, 397 #7-#8, 788 #3 <i>Geometry Activity</i> 28 TWE: OEA 256

CONTENT STANDARDS	PAGE REFERENCES
3. Apply the 45-45-90 and 30-60-90 right triangle relationships to solve problems.	SE: 357-362, 370 #72-#75, 376 #36-#38, 394 #16-#20, 397 #10-#12, 398 #5 TWE: OEA 363
4. Express the trigonometric functions as ratios and derive the relationship between sine, cosine, and tangent ratios, and use to solve real-world problems.	SE: 364-370, 371-376, 377-382, 385-389, 394 #21-#25, 397 #13-#15 <i>Geometry Activity</i> 391 TWE: DI 366, 372 TTT 375
5. Similar Polygons	
a. Use similar figures to construct ratios and solve for a missing side.	SE: 289-296, 298-305, 308 ex 1, 311 #4-#5, 316-322, 333 #18-#19, 334 #22-#26, 336 #35-#38, 337 #16-#17 TWE: OEA 306
b. Use ratios of similar figures to find linear distance, perimeter, area, and volume.	SE: 291 ex 4, 293 #9, 295 #45-#47, 296 #59, , 316 ex 1, 319 #3-#4, 320 #10-#15, 336 #35-#38, 337 #16-#17 TWE: OEA 323

### Codes Used for TWE Pages

CC	Concept Check
DI	Daily Intervention
GA	Geometry Activity
OEA	Open-Ended Assessment
TNT	Tips for New Teachers
TTT	Teacher to Teacher