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| **MT: Geometry** | | |
|  | **Learn** | **Practice** |
| **Target 1:** Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them. (M.8.G.2) | * <http://quizlet.com/40549623/geometry-m8g2-flash-cards/> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/testing-congruence-by-transformations-example> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/another-congruence-by-transformation-example> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/example-of-rigid-transformation-and-congruence> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/another-example-of-rigid-transformations-for-congruence> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/v/rotating-segment-about-orgin-example> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/v/reflecting-line-across-another-line-example> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/v/translations-of-polygons> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/v/determining-a-translation-for-a-shape> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/v/rotation-of-polygons-example> * <http://www.ck12.org/user:YmdyZWVyQG1pdGFjYWRlbXkub3Jn/section/Transformations-%253A%253Aof%253A%253A-Integers/> * <http://www.ck12.org/geometry/Translations-Rotations-and-Reflections/lesson/Translations-Rotations-and-Reflections/r9/> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/testing-congruence-by-transformations-example> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/another-congruence-by-transformation-example> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/example-of-rigid-transformation-and-congruence> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/v/another-example-of-rigid-transformations-for-congruence> * <http://learnzillion.com/lessons/3200-assess-congruence-using-multiple-transformations> * <http://learnzillion.com/lessons/3325-assess-congruence-using-transformations> * <http://learnzillion.com/lessons/3156-demonstrate-congruence-using-a-transformation-sequence> | * <http://www.ixl.com/math/grade-8/identify-reflections-rotations-and-translations> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/e/exploring-rigid-transformations-and-congruence> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/e/defining-congruence-through-rigid-transformations> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/e/properties-of-rigid-transformations> * <http://www.mangahigh.com/en-us/games/transtar> * <http://www.ixl.com/math/grade-8/translations-graph-the-image> * <http://www.ixl.com/math/grade-8/translations-find-the-coordinates> * <http://www.ixl.com/math/grade-8/reflections-graph-the-image> * <http://www.ixl.com/math/grade-8/reflections-find-the-coordinates> * <http://www.ixl.com/math/grade-8/rotations-graph-the-image> * <http://www.ixl.com/math/grade-8/rotations-find-the-coordinates> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/e/properties-of-rigid-transformations> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/e/translations_of_points_and_polygons> * <https://www.khanacademy.org/math/geometry/transformations/exploring-rigid-transformations/e/rotation_of_polygons> * <http://www.ck12.org/geometry/Translations-Rotations-and-Reflections/asmtpractice/Translations-Rotations-and-Reflections-Practice/r1/?referrer=concept_details> * <http://www.ixl.com/math/grade-8/translations-graph-the-image> * <http://www.ixl.com/math/grade-8/translations-find-the-coordinates> * <http://www.ixl.com/math/grade-8/reflections-graph-the-image> * <http://www.ixl.com/math/grade-8/reflections-find-the-coordinates> * <http://www.ixl.com/math/grade-8/rotations-graph-the-image> * <http://www.ixl.com/math/grade-8/rotations-find-the-coordinates> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/e/exploring-rigid-transformations-and-congruence> * <https://www.khanacademy.org/math/geometry/congruent-triangles/transformations-congruence/e/defining-congruence-through-rigid-transformations> * <http://www.ixl.com/math/grade-8/translations-find-the-coordinates> * <http://www.ixl.com/math/grade-8/reflections-find-the-coordinates> * <http://www.ixl.com/math/grade-8/rotations-find-the-coordinates> |
| **Target 2:** Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them. (M.8.G.4) | * <http://quizlet.com/40551192/geometry-m8g4-flash-cards/> * <https://www.khanacademy.org/math/geometry/transformations/dilations-scaling/v/comparing-side-lengths-after-dilation> * <https://www.khanacademy.org/math/geometry/transformations/dilations-scaling/v/thinking-about-dilations> * <https://www.khanacademy.org/math/geometry/transformations/dilations-scaling/v/dilating-from-an-arbitrary-point-example> * <http://learnzillion.com/lessons/1357-prove-two-figures-are-similar-after-a-dilation> * <http://learnzillion.com/lessons/1336-prove-two-figures-are-congruent-after-a-series-of-reflections-rotations-or-dilations> * <http://www.ck12.org/geometry/Dilation-in-the-Coordinate-Plane/lesson/Dilation-in-the-Coordinate-Plane/r9/> * <http://www.ck12.org/geometry/Dilation-in-the-Coordinate-Plane/lesson/Dilation-in-the-Coordinate-Plane-Intermediate/r10/> * <http://learnzillion.com/lessons/1357-prove-two-figures-are-similar-after-a-dilation> * <http://learnzillion.com/lessons/4028-determine-if-two-figures-are-similar-using-transformations-and-dilations> * <http://learnzillion.com/lessons/1398-describe-a-sequence-of-transformations> * <http://learnzillion.com/lessons/1357-prove-two-figures-are-similar-after-a-dilation> * <http://learnzillion.com/lessons/4028-determine-if-two-figures-are-similar-using-transformations-and-dilations> * <http://learnzillion.com/lessons/1398-describe-a-sequence-of-transformations> | * <http://www.ixl.com/math/grade-8/identify-reflections-rotations-and-translations> * <https://www.khanacademy.org/math/geometry/transformations/dilations-scaling/e/dilations> * <http://www.ck12.org/geometry/Dilation-in-the-Coordinate-Plane/asmtpractice/Dilation-in-the-Coordinate-Plane-Practice/r1/?referrer=concept_details> * <http://www.ixl.com/math/grade-8/dilations-graph-the-image> * <http://www.ixl.com/math/grade-8/dilations-find-the-coordinates> * <https://www.khanacademy.org/math/geometry/similarity/similarity-and-transformations/e/exploring-angle-preserving-transformations-and-similarity> * <https://www.khanacademy.org/math/geometry/similarity/similarity-and-transformations/e/defining-similarity-through-angle-preserving-transformations> * <https://www.khanacademy.org/math/geometry/similarity/similarity-and-transformations/e/exploring-angle-preserving-transformations-and-similarity> * <https://www.khanacademy.org/math/geometry/similarity/similarity-and-transformations/e/defining-similarity-through-angle-preserving-transformations> |
| **Target 3:** Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. (M.8.G.5) | * <http://quizlet.com/40551846/geometry-m8g5-flash-cards/> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-angles-between-lines/v/angles-formed-by-parallel-lines-and-transversals> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-angles-between-lines/v/identifying-parallel-and-perpendicular-lines> * <http://www.montereyinstitute.org/courses/DevelopmentalMath/COURSE_TEXT2_RESOURCE/U07_L1_T3_text_final.html> * <http://www.ask-math.com/criteria-for-similarity-of-triangles.html> * <https://www.khanacademy.org/math/geometry/parallel-and-perpendicular-lines/triang_prop_tut/v/proof---sum-of-measures-of-angles-in-a-triangle-are-180> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/triangle-angle-example-1> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/triangle-angle-example-2> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/triangle-angle-example-3> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/challenging-triangle-angle-problem> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/triangle-angle-example-2> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/challenging-triangle-angle-problem> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/finding-more-angles> * <http://www.ck12.org/geometry/Triangle-Sum-Theorem/lecture/Proof-Sum-of-Measures-of-Angles-in-a-Triangle-is-180/r1/> * <http://learnzillion.com/lessons/1229-find-the-measurement-of-an-exterior-angle> * <http://learnzillion.com/lessons/3600-understand-the-relationship-between-exterior-angles> * <http://learnzillion.com/lessons/3543-relate-angles-and-transversals> * <http://learnzillion.com/lessons/1241-find-the-measurements-of-alternate-interior-and-alternate-exterior-angles> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/v/triangle-angle-example-2> * <http://learnzillion.com/lessons/3591-determine-similarity-by-comparing-angles> * <https://www.khanacademy.org/math/geometry/similarity/old_school_similarity/v/similar-triangles> * <https://www.khanacademy.org/math/geometry/similarity/old_school_similarity/v/similar-triangles--part-2> * <http://www.ck12.org/geometry/AA-Similarity/lecture/Similar-Triangles-Using-Angle-Angle/> * <http://learnzillion.com/lessons/2787-prove-that-two-triangles-are-similar-by-writing-an-algebraic-proof> | * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-angles-between-lines/e/congruent_angles> * <http://www.ck12.org/geometry/Triangle-Sum-Theorem/exerciseint/Given-Two-Congruent-Triangles%2C-Solve-for-the-Unknown-Interior-Angle/r1/> * <http://www.ck12.org/geometry/Triangle-Sum-Theorem/asmtpractice/Triangle-Sum-Theorem-Practice/r1/?referrer=concept_details> * <http://www.mathopolis.com/questions/q.php?id=732&site=1&ref=/proof180deg.html&qs=732_1518_733_1519_2139_2140_3938_3939_2141_2142> * <http://www.what2learn.com/home/examgames/maths/angles1/> * <http://www.softschools.com/math/geometry/measurement_and_geometry/sum_of_the_angle_in_traingle/> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/e/angles_1> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-triangle-angles/e/angles_2> |
| **Target 4:** Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. (M.8.G.7) | * <http://quizlet.com/40552206/geometry-m8g7-flash-cards/> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/v/pythagorean-theorem> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/v/the-pythagorean-theorem> * <http://www.ck12.org/algebra/Pythagorean-Theorem-and-its-Converse/enrichment/Pythagorean-Theorem-Overview/r1/> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/v/pythagorean-theorem-1> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/v/pythagorean-theorem-3> * <http://www.ck12.org/algebra/Applications-Using-the-Pythagorean-Theorem/lecture/Applications-Using-the-Pythagorean-Theorem-An-Explanation-of-the-Concept/r1/> * <http://learnzillion.com/lessons/1303-apply-the-pythagorean-theorem-to-three-dimensional-figures-using-right-triangles> * <http://mrart.wikispaces.com/file/view/3-D%20Pythagorean%20Theorem%20-%20Pyramid.pdf/384198310/3-D%20Pythagorean%20Theorem%20-%20Pyramid.pdf> * <https://www.youtube.com/watch?v=TuXeDw-zqQQ> * <https://www.youtube.com/watch?v=Yi1jYlCzU4E> * <https://www.youtube.com/watch?v=uRfyQWfU8_Q> * <http://www.ck12.org/algebra/Pythagorean-Theorem-and-its-Converse/lesson/Pythagorean-Theorem-and-its-Converse/r22/> * <http://www.ck12.org/algebra/Pythagorean-Theorem-and-its-Converse/lesson/Pythagorean-Theorem-and-its-Converse-Intermediate/r8/> * <http://www.ck12.org/algebra/Pythagorean-Theorem-and-its-Converse/lesson/Pythagorean-Theorem-and-its-Converse-Grade-7/r6/> * <https://www.youtube.com/watch?v=U0mGqxus8DM> * <http://quizlet.com/40552548/geometry-m8g8-flash-cards/> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/v/pythagorean-theorem> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/v/the-pythagorean-theorem> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/enrichment/Finding-Distances-Using-the-Pythagorean-Theorem-Example-2/r1/> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/enrichment/Finding-Distances-Using-the-Pythagorean-Theorem-Example-3/r1/> * <http://www.ck12.org/trigonometry/Pythagorean-Theorem-to-Determine-Distance/lesson/Pythagorean-Theorem-to-Determine-Distance/r4/> * <http://learnzillion.com/lessons/3461-solve-realworld-mathematical-problems-involving-coordinate-planes> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/enrichment/Finding-Distances-Using-the-Pythagorean-Theorem-Example-2/r1/> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/enrichment/Finding-Distances-Using-the-Pythagorean-Theorem-Example-3/r1/> * <http://www.ck12.org/trigonometry/Pythagorean-Theorem-to-Determine-Distance/lesson/Pythagorean-Theorem-to-Determine-Distance/r4/> * <http://learnzillion.com/lessons/3461-solve-realworld-mathematical-problems-involving-coordinate-planes> * <http://www.wikihow.com/Use-the-Pythagorean-Theorem> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/v/distance-formula> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/lesson/Identify-and-Use-the-Distance-Formula/r8/> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/lecture/The-Distance-Formula/r1/> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/enrichment/Finding-Distances-Using-the-Pythagorean-Theorem-Overview/r1/> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/enrichment/Finding-Distances-Using-the-Pythagorean-Theorem-Example-1/r1/> * <https://www.youtube.com/watch?v=YBeXhGl6pSE> | * <http://www.ck12.org/algebra/Applications-Using-the-Pythagorean-Theorem/asmtpractice/Applications-Using-the-Pythagorean-Theorem-Practice/r1/?referrer=concept_details> * <http://www.ixl.com/math/grade-8/pythagorean-theorem-word-problems> * <http://www.regentsprep.org/Regents/math/geometry/GP13/PracPyth.htm> * <http://www.regentsprep.org/regents/math/algebra/at1/pracpyth.htm> * <http://www.pbs.org/wgbh/nova/proof/puzzle/use.html> * <http://mrart.wikispaces.com/file/view/3-D%20Pythagorean%20Theorem%20-%20Pyramid.pdf/384198310/3-D%20Pythagorean%20Theorem%20-%20Pyramid.pdf> * <http://www.ck12.org/algebra/Pythagorean-Theorem-and-its-Converse/> * <http://www.ixl.com/math/grade-8/converse-of-the-pythagorean-theorem-is-it-a-right-triangle> * <http://www.ck12.org/trigonometry/Pythagorean-Theorem-to-Determine-Distance/asmtpractice/Pythagorean-Theorem-to-Determine-Distance-Practice/r1/?referrer=concept_details> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/e/distance_formula> * <http://www.ixl.com/math/grade-8/distance-between-two-points> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-pythagorean-theorem/e/distance_formula> * <http://www.ck12.org/geometry/Distance-Formula-and-the-Pythagorean-Theorem/asmtpractice/Distance-Formula-and-the-Pythagorean-Theorem-Practice/r1/?referrer=concept_details> |
| **Target 6:** Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems. (M.8.G.9) | * <http://quizlet.com/40553047/geometry-m8g9-flash-cards/> * <http://www.math.com/school/subject3/lessons/S3U4L4DP.html> * <http://learnzillion.com/lessons/1358-develop-and-apply-the-formula-for-volume-of-a-cone> * <http://learnzillion.com/lessons/3616-find-the-volume-of-a-cone> * <https://www.youtube.com/watch?v=Q6VVYREh5Q8> * <http://learnzillion.com/lessons/3576-find-the-volume-of-a-sphere> * <http://learnzillion.com/lessons/1361-develop-and-apply-the-formula-for-volume-of-a-sphere> * <https://www.youtube.com/watch?v=Q6VVYREh5Q8> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-volume/v/cylinder-volume-and-surface-area> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-volume/v/volume-of-a-sphere> * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-volume/v/volume-cone-example> * <http://learnzillion.com/lessons/1353-develop-and-apply-the-formula-for-volume-of-a-cylinder> * <https://www.youtube.com/watch?v=dtgHBVRHI1E> * <https://www.youtube.com/watch?v=0G30dNbbmJc> | * <https://www.khanacademy.org/math/cc-eighth-grade-math/cc-8th-geometry/cc-8th-volume/e/volume-word-problems-with-cones--cylinders--and-spheres> * <http://www.ck12.org/geometry/Volume-of-Cones/asmtpractice/Volume-of-Cones-Practice/r1/?referrer=concept_details> * <http://www.ck12.org/geometry/Volume-of-Cylinders/> * <http://www.ck12.org/geometry/Volume-of-Sphere/> * <http://www.ixl.com/math/grade-8/volume-of-prisms-and-cylinders> * <http://www.ixl.com/math/grade-8/volume-of-pyramids-and-cones> * <http://www.ixl.com/math/grade-8/volume-and-surface-area-of-spheres> |