

cK12.org Flexbook Links to Support Curriculum 2.0 Geometry and Honors Geometry

This document outlines concepts in each Topic for the Unit. When corresponding resources are available in cK12.org, a hyperlink is provided for the Flexbook. The cK12.org Flexbooks provide a variety of examples, definitions, and extra practice problems related to some of the concepts in Curriculum 2.0 Geometry and Honors Geometry. The concepts will be developed in greater depth and with appropriate vocabulary in the classroom. The materials in the Flexbooks are intended to provide additional support to the classroom expectations. The vocabulary and methods in these examples may differ slightly from the classroom expectation; however, the overall intent is consistent with the content expectation.

Unit 2: Similarity, Right Triangles, and Trigonometry

Topic 1: Similarity

- Draw a dilation when given a rule (center and scale factor greater than 0) and write a rule given a dilation. ([cK – 12 Flexbook Unit 2 Topic 1 SLTs 1 & 2](#))
- Verify that a side length of the image is equal to the scale factor multiplied by the corresponding side length of the pre-image of the dilation. ([cK – 12 Flexbook Unit 2 Topic 1 SLTs 3 & 4](#))
- Develop a definition for similarity using the principles of dilation and identify examples and non-examples of similarity. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 5](#))
- Develop similarity statements and identify corresponding angles and sides based on the statements. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 6](#))
- Show that A-A, S-A-S, and S-S-S are sufficient conditions to prove triangle similarity. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 7](#))
- Use triangle similarity criteria (AA, SAS, SSS) to show that two triangles are similar. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 8](#))
- Use triangle similarity criteria to show that two triangles are similar. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 9](#))
- Use triangle similarity to prove a line parallel to one side of a triangle divides the other two proportionally, and its converse. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 10](#))
- Use triangle similarity to prove the Pythagorean Theorem and its converse. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 11](#))
- Use triangle similarity to prove the Pythagorean Theorem and its converse. ([cK – 12 Flexbook Unit 2 Topic 1 SLT 12](#))
- Apply triangle congruence and triangle similarity to solve problem situations. ([cK – 12 Flexbook Unit 2 Topic 1 SLTs 13 & 14](#))

Topic 2: Right Triangles and Trigonometry

- Develop trigonometric ratios for angles using the relationships between sides and angles in a right triangle. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 16](#))
- Find the side ratios for sine, cosine, tangent, cosecant, secant, and cotangent of a given triangle. ([cK – 12 Flexbook Unit 2 Topic 2 SLTs 17 & 18](#))
- Explore the connection between trigonometric ratios and their associated angle. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 19](#))
- Determine the relationship between sine and cosine. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 20](#))
- Apply trigonometric ratios to solve for missing angles and sides of right triangles. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 21](#))
- Apply trigonometric ratios and the Pythagorean Theorem to solve for missing angles and sides of right triangles. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 22](#))
- Model and solve application problems involving right triangles. ([cK – 12 Flexbook Unit 2 Topic 2 SLTs 23 & 24](#))

Honors Geometry only

- Derive the trigonometric formula for the area of a triangle. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 25](#))
- Use the law of sines to solve problems. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 26](#))
- Use the law of cosines to solve problems. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 27](#))
- Apply the law of sines and law of cosines to solve problems. ([cK – 12 Flexbook Unit 2 Topic 2 SLT 28](#))