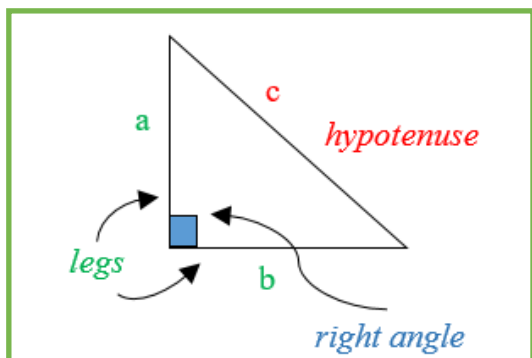Dear Eighth Grade Families,

In Unit 8, students will work on the following eighth grade Common Core standards in the Geometry (G) domain.

8.G.6	Explain a proof of the Pythagorean Theorem and its converse.
8.G.7	Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
8.G.8	Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

Pythagorean Theorem: $a^2 + b^2 = c^2$

Ask questions like these to help your eighth grader as a productive mathematical thinker:

- Name some every-day tools that show proportional relationships between 2 different units of measure.
- How can you use graphs to demonstrate proportionality?
- What have you learned in previous grades that is helps you understand this topic?
- What tools do you use when modeling proportional relationships?
- What does the slope tell you? Why could that be useful?
- How can you tell if a relationship is not proportional?
- What is meant by "similar triangles?" How could this help you solve other, real-world problems?
- How do you find the length of the hypotenuse of a triangle?

Unit 8 Concepts:
- Understanding the Pythagorean Theorem
- Applying the converse of the Pythagorean Theorem
- Distance on coordinate planes

We encourage you to talk with your child daily about what was learned in math class.
Thank you for your support!

Unit 8 Vocabulary:
- Theorem
- Legs
- Hypotenuse
- Right triangle
- Pythagorean Theorem
- Converse

Need a review?
Have your student login to Swun Math to access lesson support videos.