

BC Math 8 - Pythagorean Theorem

Content: Perfect Squares, Square Roots, & Pythagorean Theorem

Curricular Competency: Apply multiple strategies to solve problems in both abstract and contextualized situations

Building Readiness <i>Where will students need to begin?</i>	Exploring the Goal <i>What steps will students need to take to explore and practice?</i>	Clarifying Proficiency <i>How will we know when students are proficient?</i>	Enriching Understanding <i>What might students do to deepen their skill and understanding?</i>
To begin making connections, I may be exploring these skills and this knowledge: What is a perfect square? What is a square root? What is a formula? What is the pythagorean theorem?	As I am working on this competency, I may be exploring these skills and this knowledge: I can demonstrate how to use the Pythagorean Theorem to find for side a, b, or c. I can memorize my perfect squares to 15 and square roots to 225. I can estimate non-perfect square roots. I can show how formulas, units, and steps can clarify math thinking.	I can apply multiple strategies to solve problems using the Pythagorean Theorem in both abstract and contextualized situations. (Bloom's: Application). This means that... I can use the Pythagorean Theorem at appropriate and useful times. I can manipulate squares and square roots accurately. I can show my math thinking clearly.	In order to deepen my skills and understanding: Can you make a distinction between perfect and non-perfect squares? Could you use a visual to do so? (Bloom's: Analysis) Can you invent a formula that calculates the Pythagorean Theorem in 3D space? (Bloom's: Synthesis)

Big Goal: I can **apply** the Pythagorean Theorem to solve a variety of problems.

What does this mean?

Highlight the skills and knowledge in each column when you are ready to move onto the next stage in your learning.

First, I will need to know/do this:	Next, I must know/do this:	When I'm proficient, I can apply the Pythagorean Theorem to solve a variety of problems.	Later, I might try this:
What is a perfect square? What is a square root? What is a formula? What is the pythagorean theorem?	I can demonstrate how to use the Pythagorean Theorem to find for side a, b, c. I can memorize my perfect squares to 15 and square roots to 225. I can estimate non-perfect square roots. I can show how formulas, units, and steps can clarify math thinking.	<i>This means that...</i> I can use the Pythagorean Theorem at appropriate times I can accurately manipulate squares and square roots I can clearly show my math thinking with formulas, steps, and a final answer with units	Can you make a distinction between perfect and non-perfect squares? Could you use a visual to do so? Can you invent a formula that calculates the Pythagorean Theorem in 3D space?

Math 8 - Pythagorean Theorem Rubric

🎯 I can apply the Pythagorean Theorem to solve a variety of problems. 🎯		
Areas for Growth	This means that I can...	Areas of Strength
	★ Use the Pythagorean Theorem at appropriate times ★ Accurately manipulate squares and square roots ★ Clearly show my math thinking with formulas, steps, and a final answer with units	

Extending Your Learning

Can you make a distinction between perfect and non-perfect squares? Could you use a visual to do so?

Can you invent a formula that calculates the Pythagorean Theorem in 3D space?