

## Using Tokbox to teach the Pythagorean Theorem

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| Overview  | <ul style="list-style-type: none"> <li>- Students will learn how to find the length of sides of right triangles by using the Pythagorean Theorem.</li> </ul>   |
| Objective | <ul style="list-style-type: none"> <li>- Students will be able to:             <ol style="list-style-type: none"> <li>a) Describe and define the Pythagorean Theorem.</li> <li>b) Identify a right triangle and the corresponding sides that fit the Pythagorean Theorem.</li> <li>c) Identify the difference between the legs and the hypotenuse of a right triangle.</li> <li>d) Solve the Pythagorean Theorem, given two sides of the right triangle.</li> <li>e) Differentiate when they are and are not supposed to use the Pythagorean Theorem.</li> </ol> </li> </ul> |
| Standards | <ul style="list-style-type: none"> <li>- PA Academic Standards: 2.1.8.E, 2.2.8.A, 2.3.8.A, 2.5.8.B, 2.5.8.D.</li> </ul>  |
| Materials | <ul style="list-style-type: none"> <li>- Students will need:             <ol style="list-style-type: none"> <li>a) Writing utensils.</li> <li>b) Notebook Paper.</li> <li>c) Calculator (optional)</li> <li>d) Textbook.</li> <li>e) Computer for accessing Tokbox.</li> </ol> </li> <li>- Teachers will need:             <ol style="list-style-type: none"> <li>a) Dry erase markers.</li> <li>b) A dry erase board.</li> <li>c) Calculator (optional)</li> <li>d) Textbook.</li> <li>e) Computer for accessing Tokbox.</li> </ol> </li> </ul>                             |
| Procedure | <ul style="list-style-type: none"> <li>- Log into Tokbox.</li> <li>- Access your class' chat area.</li> <li>- Once the chat areas have been opened and there is contact between the classroom and the teacher, start the lesson.</li> <li>- Begin notes by writing down the definition of the Pythagorean Theorem, writing down the equation, and drawing a picture to show where each component of the equation belongs in the triangle.</li> <li>- Explain to the students the different components of the Pythagorean Theorem</li> </ul>                                  |

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|            | <p>and which parts of the equation correspond to each side of a right triangle.</p> <ul style="list-style-type: none"> <li>- Do an example problem on the dry erase board and solve it for the students. This will give the students a mental image of how the Pythagorean Theorem works.</li> <li>- Draw up another example problem only this time let the students solve it. After they have solved the problem, explain why they are correct.</li> <li>- Have the students solve a word-problem example. This will allow the students to develop their own images and will let them critically think to solve problems.</li> <li>- Assign homework.</li> </ul> |
| Evaluation | <ul style="list-style-type: none"> <li>- Students will be formally assessed through grading students' homework.</li> <li>- Informally assess students by asking them to answer questions.</li> <li>- Formally assess students by testing them on the material at the end of the chapter.</li> </ul>   |

<http://www.lessonplanspage.com/MathPreAlgPythagoreanTheorem7.htm>