



Lesson 4.02 Pythagorean Theorem; Identifying Right Triangles

Overview

The goal of this lesson is given the variables in an equation in the form of $a^2+b^2=c^2$, students will work the Pythagorean Theorem in reverse to determine if the measured triangle is a right triangle.

By the end of this lesson you will be able to using the Pythagorean Theorem to solve problems and determine the length of a leg or the length of a hypotenuse given a right triangle.

Review of Prior Learning – Prepare For This Topic

1. Navigate to the Pearson/Prentice Hall site to take your preassessment. Record your score (self assessment).
2. A triangle is a polygon with three sides. You can classify triangles by angle measurements. Right triangles can be isosceles (two congruent sides) or scalene, but always feature a 90 angle (Florida Educational Technology Clearinghouse, 2009).

My steps for lesson 4.02 Pythagorean Theorem & Right Triangles

1. Take preassessment 11.2 on the Pearson site
2. Navigate to the lesson page and watch the video
3. Read the biography and perform two activities
4. Complete the worksheet
5. Log on to Apangea and complete the right triangle thread
6. Take postassessment on the Pearson site
7. Blog my reflective summary and post the link to the discussion board.
8. Respond to two classmates' blog entries.

$$a^2+b^2=c^2$$

Instruction

By now you should have read the course navigation. As a reminder, each lesson is designed to provide you with a video overview followed by practice and feedback. The lesson page is divided into six general areas.

1. Watch the instructional video using the Pythagorean Theorem.
2. Visit the reading link to Pythagora's biography (Mathsnet, 2011).
3. Navigate to the *theorem* tab and read the selection.
4. Navigate to the *related things* tab and select two activities to try. Print the screen of your results and paste in a word document.
5. Upload the screen shots to the assignment drop box

Practice

Give it a Try –

1. Pythagora developed his system to determine area measurements or side measurements. You will have an opportunity to use his theory backwards! Using the link provided on the left of the instructional video, download the .pdf form worksheet and complete it. Save it as yourname402 and upload it to the drop box.
 2. Log on to Apangea. Complete the right triangle thread.
- If you experience login errors, or you do not have your assigned username and password, please let me know via e-mail.

Assess

1. Navigate to the Pearson/Prentice Hall site to take your postassessment 11-2. Record your score (self assessment).

Reflect

(Blog assignment) – Topic:

1. What problem did Pythagora need to solve when he developed his theorem?
2. Using at least two paragraphs describe a time when you or someone you know developed a different way of doing something that saved time and/or resources.

Respond

1. Read at least two classmates' blogs and to each, provide a thoughtful response (four or more sentences).

Florida Educational Technology Clearinghouse. (2009). *Flashcard of a Right Triangle Clip Art*. Retrieved July 16, 2011, from Florida Educational Technology Clearinghouse: http://etc.usf.edu/clipart/41700/41747/fc_righttri_41747.htm

Klinzmann, J. (2009, January 28). *Math Made Easy*. Retrieved July 17, 2011, from You Tube: Math Made Easy: Using the Pythagorean Theorem

Mathsnet. (2011). *Interactive Pythagoras's Theorem* . Retrieved July 17, 2011, from Mathsnet: <http://www.mathsnet.net/dynamic/pythagoras/theorem.html>

TeacherTubeMath. (2009, August 25). *Right Triangles and the Pythagorean Theorem* . Retrieved July 17, 2011, from YouTube: http://www.youtube.com/watch?v=fZG_A5AzxIU&NR=1