

## **Pythagorean Theorem History and Proof Webquest Worksheet**

### **History and Proof Phase 1: Pythagoras**

Read the following pages and answer the questions.

[Pythagoras was a Strange Dude](#)

[Rope Stretcher](#)

1. When and where was Pythagoras born?
2. Why did Thales tell Pythagoras to travel the “ancient lands?”
3. Who did Pythagoras study with in Egypt? What secret did these people have and what did it enable them to do?
4. What was Pythagoras’ most famous discovery? State Pythagoras' formula in words and mathematical symbols.
5. Paraphrase how Pythagoras discovered a proof of the formula.

## History and Proof Phase 2: Problems

Answer the following questions. Give exact answers by reducing radicals. Do not reduce to decimals.

1.  $a = 3$ ,  $b = 4$ , find  $c$
2.  $a = 11$ ,  $b = 13$ , find  $c$
3.  $a = 6$ ,  $c = 10$ , find  $b$
4. A rectangle has a width of 4 yards and a length of 5 feet. How long is the diagonal in feet?
5. Find the length of a rectangle that has a diagonal of 25 feet and a width of 15 feet.
6. A 15 foot ladder is leaned against a wall. If the base of the ladder is 8 feet from the wall, how high up the wall will the ladder reach?

### **History and Proof Phase 3: Proof**

Browse the following pages and answer the questions.

[Cut the Knot: Pythagorean Theorem](#)

[Pythagorean Theorem by Angie Head](#)

1. List three proofs of the Pythagorean Theorem. Include the full name of the person who discovered each proof.
  - a.
  - b.
  - c.
2. Evaluate one proof that, for you, is either is the most straightforward or the most interesting. Reconstruct the proof below. Defend the proof by drawing a diagram and using mathematical language to explain it. If you need graph paper, print out a sheet from [Print Free Graph Paper](#). Attach any extra paper to this worksheet.