Right now, we're learning how to use Graphics, giving you a powerful tool in making presentations and in general, like this class's title implied you should learn, visualization. I'm sure you're all familiar with the Pythagorean Theorem, that for a right triangle with hypotenuse $c$ and legs $a$ and $b,$

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

A formula so ubiquitous it's in Word's function drop down menu (yes, I type these in Word, I'll learn LaTeX eventually leave me alone). However, have you ever seen why it works? We learn this formula early on in grade school, but they neglect to show us a proof of it, and then even if you take upper level math classes you probably won't see a proof unless you take a geometry course specifically (I highly recommend MATH430 – Euclidian and Non-Euclidian Geometries).

Hold on a second though – that's not the name of this assignment, our task is to prove the Baudhayana Theorem. And what is "Sulba Sutra"? Punchline: The Baudhayana Theorem is the Pythagorean Theorem, or rather I should say the Pythagorean Theorem is the Baudhayana Theorem since Baudhayana came first – you see, the Baudhayana Sutras are a group of Vedic Sanskrit texts on dharma, daily rituals, and mathematics, amongst other things, and in them states:
Which translates to:

"A rope stretched along the length of the diagonal produces an area which the vertical and horizontal sides make together."

what we call today "The Pythagorean Theorem" thanks to the all-too-common practice of Europeans giving themselves credit for things in the literature.

And, now that you've been reverse-propagandized, that's it. I want you to make a visualization of the proof of the Baudhayana Theorem. You can use any proof you want, or a qualitative special-reasoning kind of visualization pseudo-proof. End product: I want something that will convince me that $a^2 + b^2 = c^2$ for a right triangle, something that establishes the intuition about why this theorem works. Two things to remind you of that might be helpful in deciding how to visualize this:

This is Wikipedia's cover image for the "Pythagorean" Theorem – it shows a geometric interpretation of what squaring the side lengths means, but visually it’s not obvious that the sum of the a and b squares is that of the c square.

The Wolfram MathWorld page on the Pythagorean Theorem might be helpful:
http://mathworld.wolfram.com/PythagoreanTheorem.html
And the Wikipedia page:
https://en.wikipedia.org/wiki/Pythagorean_theorem