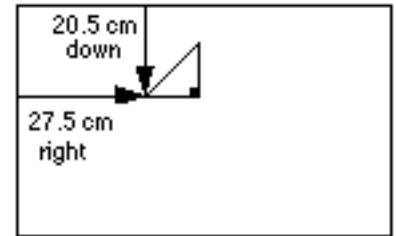


The Pythagorean Spiral - Math Project

- Materials:**
- White Poster Board
 - Pencil, Colored Pencils/Markers
 - ruler (metric) & metre stick
 - 90° corner triangle

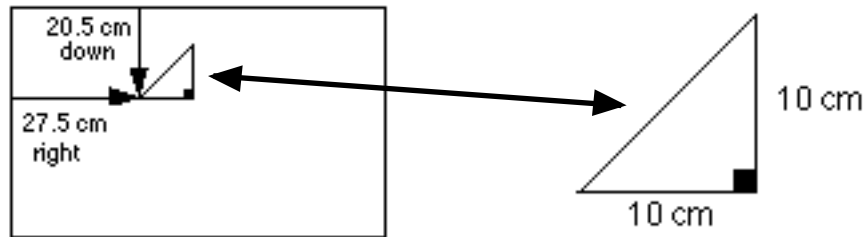
Step 1: Beginning in the correct location

Place the poster board on its side. With the poster board in this position measure from the top left hand corner, 27.5 cm to the right and 20.5 cm down. This position is crucial to placing the full diagram on the poster board. (Diagram right)



Step 2: Placing the triangle on the poster board

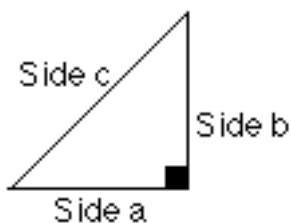
Using your ruler create a right triangle starting at the above location. Draw the triangle to the right of the starting point. The base of the triangle needs to be parallel with the top and the bottom of the poster paper. To create the 90° corner place the triangle tool down and trace the corner. The lengths of the sides of the original triangle should be as shown below:



Step 3: Calculate the Hypotenuse's Length

Using the Pythagorean theorem calculate the length of the Hypotenuse. Do the calculations on a separate piece of paper and then place the reduced answer on the hypotenuse. All answers must be in their most reduced forms!!!

I will do the first one for you:



$$a = 10 \text{ cm} \quad b = 10 \text{ cm}$$

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

$$(10)^2 + (10)^2 = c^2$$

$$100 + 100 = c^2$$

$$200 = c^2$$

$$\sqrt{200} = c$$

$$\sqrt{100 * 2} = c$$

$$10\sqrt{2} = c$$

