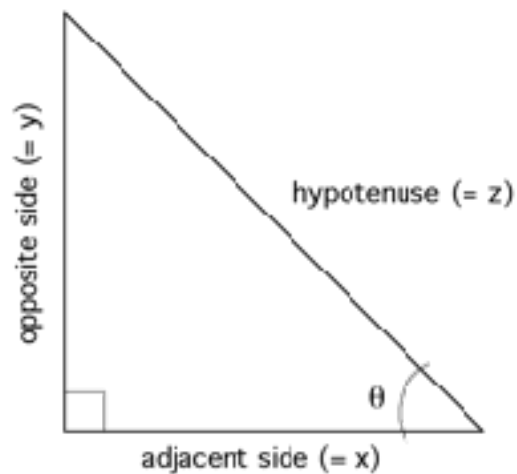

DAT8921 Lab 7

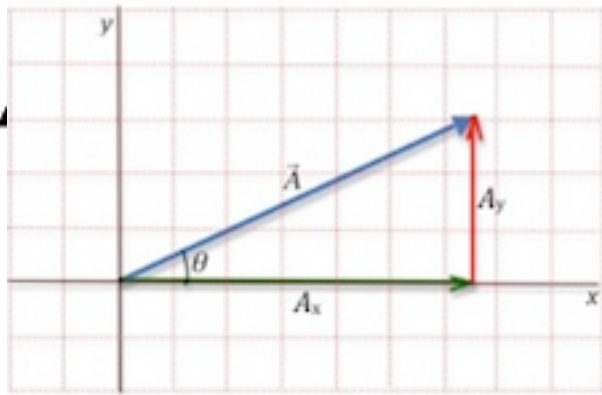
Pythagorus was an ancient philosopher and mathematician. One the Pythagorean's greatest accomplishments was the description of a triangle.



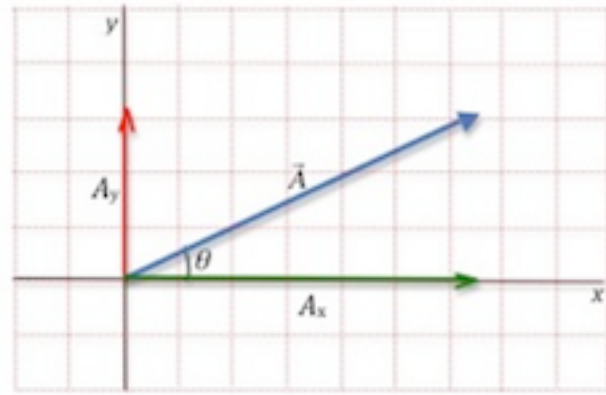
Without the mathematical description of a triangle we could have never been able to understand circuits, or even basic mechanics. An interesting thing to note about the hypotenuse is that it is the square-root of the sum of the squares, which means that it is really just the sum of the X axis and Y axis components. Looking at things this way is called “projections”.

There will be three parts to this assignment.

- 1- Create a program that takes in the hypotenuse and angle from the user and outputs



(a)



(b)

the X and Y component.

- 2- Create another program that takes the X and Y components, and prints out the hypotenuse and angle.
- 3- Create a Program that can get any parts of a triangle from the user and outputs the unknowns to the user.

*****Your programs must be able to filter out nonsense/junk inputs, and run continuously!!!*****

Before you start programming write out your pseudocode!!