

Trigonometry

As a trigonometry teacher, you will be introducing your students to a new set of terms and concepts. The terms should cause no problem, but history has shown that for some students they do. While the students are struggling with the terms, they cannot apply their efforts to the concepts. The following script is one way to get all your students on board right at the beginning.

THE SCRIPT

Somewhere along the line, someone may have held up an object and asked you, “What do we call this?” (hold up an object) You then would answer, “We call it....” We agreed what we called the object was its label. (draw a triangle on the board) Some labels are made up of descriptive words such as this—what do we call it? Triangle—three angles. (draw a square on the board) Now although we could call this a quadrangle, when the sides and angles are all the same we call it a (*square*). Now where did the label “square” come from?.....I don’t know. Someone made it up, and we all accept what that label represents.

Now all labels do not define an object, but they can define a relationship. Take the word cousin. Think about it for a minute. It does not necessarily represent a specific person, but within a family it always represents a relationship between people. When we call people “mother”, “father”, “uncle”, “aunt” etc., we put a general label on the group. We call these people---(relatives). They are related.

Trigonometry is based on relationships. And just as you had to learn the labels for the relationships between relatives, you will have to learn the names of the relationships we are going to study.

(Suggestion: You might review terms like right triangle etc. which you are sure the students should know. It might also be a good idea to start a page in their notebooks labeled “Definitions.”)

The definition of sine should include the words “the relationship of... and expressed as a number.” Eventually, the definition will be shortened, but the concept of a relationship will have been established and the label committed to memory (hopefully).

Do the same for cosine, tangent, secant etc. Emphasize that these are but arbitrary names applied to relationships. There is no special meaning or magic in these labels. Just as you must memorize the names of the members of your family, you must memorize the names or labels for the family of trigonometry.