Math Club Meeting # 2: October 6, 2009

At this math club meeting we were lucky enough to have the world famous mathematician Dr. Ruediger Thiele give us a talk.

Along with the usual math club crowd, we had several new members who were there because Dr. Ruediger Theile, who was visiting all the way from Germany, caught their attention.

As usual, we started the meeting off with pizza, soda and chips so that Dr. Ruediger Thiele could get his talk underway.

The title of the talk was "Did the Greeks know real number?" After a brief introduction, Dr. Ruediger walked up to the front and began.

He first spoke of how people in today's society are determined by numbers. We have phone numbers, social security numbers, account numbers, license plate numbers and the list goes on and on. In summary, he made the point that people today rely more on numbers whereas the Greeks were more familiar with a simpler concept.

Generally speaking, the Greeks stuck to natural numbers; but does that mean that they did not know real numbers existed?

He showed us an example of where real numbers were needed for the Greeks. The Pythagorean theorem, which has hundreds of different proofs, had one proof in particular that, without real numbers, had a gap.

Dr. Ruediger Theile also talked about the importance of real numbers involved in complex angle measurements, such as curved angles, and angles between a circle and its tangent line.

Then, he went on to talk about the Greek theory of proportion, which is the foundation of geometry. He proved the theory of proportion and then used it to prove the Pythagorean theorem without real numbers.

Now for the question "Did the Greeks know real numbers?" Yes, and no. Though they did not use them as we do today, the Greeks understood them from a geometrical standpoint. Other than that they only used magnitudes.

We ended the meeting with a question and answer session before giving Dr. Reudiger a final round of applause.