Throughout the history there has been a close contact between the art and science, often mediated through philosophy. The contemporary development level of mathematics, its wide penetration into all aspects of life inevitably proves the important role of this science. Science, similar to art multiplies knowledge about life, enlarges the spiritual horizon of man. Its purpose is to analyze life to find its laws, to discover the harmony of the universe and thus to contribute to progress in the world. How should the instruction of mathematics engage the students into learning? Mathematics attracts with the logical order of the regularities, clearness of proofs, laconic language, meaningful symbols, universality of the obtained results, latitude of generalizations, penetration into various fields of knowledge and practical human activity. Students discover the beauty of math when they encounter a problem that forces them to use previously mastered knowledge and requires observation, consideration, and creative thinking at the same time. Starting from the age of 6-7 it is necessary to form the idea about the beauty of mathematics in students. Subsequently, every time studying mathematics and mastering research methods, they are convinced that mathematics possesses internal beauty. (Received September 15, 2008)