

MATHEMATICS, LANGUAGE AND POETRY

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Mathematics is a kind of language with its symbols, relations, and grammar. This language is perfect, abstract, universal and is used not only in the exact and the nature sciences. Mathematics is a very powerful tool in social sciences, liberal arts, arts and many activities of every day life. The aim of this paper is to show an humanistic approach to mathematics education as to increase motivation, satisfaction, interest and to reduce anxiety from learning this subject. Poetry uses also symbol systems, relations and grammar to express feelings, ideas and sometimes... axioms, theorems. A poem, like mathematics theorem, condense in few symbols - words, a whole idea. Omar Khayyam, the Persian mathematician, astronomer, philosopher and poet, wrote his "Rubyat" to express in four lines his opinion about meaning of life. In parallel he confront with the parallel postulate as with the third order equations, the binomial coefficients and with a new sun calendar (Franceschetti, 1999). Omar Khyam is one of some mathematicians that were involved in creative writing rather than in mathematics language. Hardy declared (1940) that mathematician's product is like the product of poet or painter. Russel (1903) wrote about the feeling of being more than human being, that can be found in mathematics as in poetry.

Ebn Ezra, Bachet, Dodgson ("Lewis Carroll"), Hamilton, Weirstrass, Leibnitz, Kowalevsky and the P.M.E. member Shlomo Vinner are examples to the duality rather than dichotomy, between mathematics and poetry. Joining poems and historical background with features of the mathematicians-poets may introduce some interest, color, esthetic and also fun to the almost, but not always, monotonous, dull lessons. Demonstrations of poems will be presented during the short oral communication.

Ref.: 1. Franceschetti, D. F. (1999) Biographical Enciclopedia of Mathematicians, N.Y.

Hardy, G. H. (1940) Mathematician's Apology, Cambridge University Press.

Russel, B. (1903) Principles of Mathematics, London