

Task solving: An effective form of students' mathematical knowledge forming

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Abstract: The great role in the process of mathematical knowledge mastering, forming of knowledge, abilities and experiences, necessary for studying mathematics, and using it in practice for preparing students to practical activity, psychologists, didactics, and methodists conduct to education tasks effective using [1]. Tasks of mathematics education at the same time appears in two aspects: as the facility and as the aim of education.

The notion «task» itself is multifaceted. The detailed analysis of definition of the notion «task» is situated in Kolyagin [3] and Fridman [4]. They point to single tasks definition absence because of investigating this notion from different points of view: logical, mathematics, cybernetic, psyche, and pedagogic. On the basis of the investigations of this question analysis one can pick out two approaches of task definition. The majority of the authors include the subject into task notion itself [5, 6, 3, 7]. On the basis of psychologists' and deducts' investigations analysis it was picked out that the structure of experiences forming should be reflected in the system to make this system an effective quality for process of forming experiences of full value control.

Keywords: mathematical knowledge, forming abilities and experiences, operations, actions, algorithms.

References:

- [1] R.A. Oganesyanyan, U.M. Kolyagin, V.Ya. Sanninskiy, Mathematics teaching methodic at general school. The general methodic: Studying assistance, edition, Moscow, Education, 1980.
- [2] A.S. Krigovskaya, Mathematical activity development and the role of tasks in this development, Mathematics at school, no. 6, pp. 19-30, 1966.
- [3] U.M. Kolyagin, Mathematical tasks as a quality for students teaching and development, Moscow, Education, 1977.
- [4] L.M. Fridman, Logical-psyche analysis of school studying tasks, Moscow, Education, 1977.
- [5] G.A. Ball, Definition of task notion. The process of the task solving, Kiev, Science thinking, pp. 65-79, 1971.
- [6] M.A. Danilov, Education process in Soviet school, Moscow, Teaching edition, 1960.
- [7] A.N. Leon't'ev, Activity. Mind. Personality, Moscow, Political edition, 1975.