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USING APPLIED TASKS IN THE PROCESS OF STUDY DERIVATIVES IN THE COURSE OF ALGEBRA AND BEGINNING ANALYSIS IN CLASSES OF DIFFERENT PROFILES

Modern School is gradually redirecting to defining the child personality the most valuable; directing a teacher to humane, democratic principles shared with pupil life activity, education of personality, capable to continuous updating and improvement the level their own knowledge, ability to apply them in changed conditions. Therefore, the thesis "mathematics should be taught so as to be able to use it", which said well-known mathematicians and teachers such as V. Arnold is actual to modern schools. This is confirmed by the results of international comparative studies which take place in recent decades. They showed that Ukrainian students better than students of many other countries use tasks of reproductive character which display mastering subject knowledge and skills. However, their results are lower during execution tasks on using their knowledge in practical situations, the content of which is presented in an unusual, irregular form; in which it is necessary to analyze data or their interpretation and draw conclusions. That's why strengthening applied directionality of mathematics study, especially in senior school, which is the link between secondary and higher education is an actual and important problem.

One of the main part of school algebra course and beginning the analysis is the part "derivative and its applications". It is a part of the line semantic function and has an extensive system of intra-subject (with other lines of course) and interdisciplinary connections. In addition, this part has its logical continuation in math courses of high school. Applied tasks are connected with finding the derivative, they are absent in textbooks of senior school. Taking into consideration the important role of applied tasks in strengthen the motivation of study derivative, formation in students abilities of using knowledge in practical situations, the actual is the problem of improving the method of study the part "Derivative and Its Applications" by way of strengthening the applied orientation of learning.

The purpose of the article is to consider one of the ways of improvement the method of study derivative at senior school, strengthening the applied orientation of study by means of using in educational process applied tasks. Prepare a selection of applied tasks, for classes of different ways of profilization.

In the process of solving applied tasks during teaching of students the mathematical modeling is done, the most responsible and difficult step in solving applied tasks is construction of mathematical model. Applied tasks can be divided into those in which the mathematical model is contained in condition of the problem. Solving informal applied tasks consists of the following steps: 1) setting the problem; 2) translation tasks in terms of the language of mathematics; 3) building of mathematical model of task; 4) search plan of solving in the middle of the model; 5) realizing the plan; 6) interpretation of the results; 7) discussion

(analysis) the way of solving task.

The results of the pilot study has shown that using of applied tasks at different stages of a lesson during independent work promotes the motivation of senior pupils, development of logical thinking, activization their educational activity, forminf at pupils the skill of use their knowledge in practice, close to situation in life, build and explore mathematical models of tasks, the professional orientation of pupils