Formation of project and research skills of students in calculation of limits

Burkhan KALIMBETOV ¹, Indira OMAROVA ¹

¹ Department of Mathematics, H.A. Yasawi International Kazakh-Turkish University, Turkestan, Kazakhstan E-mail: bkalimbetov@mail.ru, omarovai10@mail.ru

Abstract: Today different goals and objectives are qualitatively assigned to the educational system, which are defined by the dictated social order, by a new model of expert and professional. Consequently, it is necessary to form a personality, which is able to organize his professional career in the ever-changing socio-cultural conditions. Therefore, current priorities of higher education are aimed at development of specialist personality, the leading component of which is the possession of an independent creative and research activities [1].

According to the heads of project and research works, the most of students are not able to independently propose and substantiate a hypothesis, plan an activity, formulate a goal, search and analyze necessary information, represent results of research, realize reflection, competently write a report. This is due to the fact that not only the students but also their teachers are not trained to project and research activities [2].

The method of rationalization [3], applied to rationalize various irrational and trigonometric expressions, and hence to solve irrational and trigonometric equations and inequalities, to calculate limits, etc., is a generalization of the well-known idea about the use of rationalize integration substitutions [4], where these substitutions are widely used to rationalize the various classes of differential expressions by I. Newton, L. Euler, P. Chebyshew and other mathematicians.

Keywords: project-research activity, radical expression, rationalization, indeterminacy, rational

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