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Ellina Grigorieva* (egrigorieva@twu.edu), PO BOX 425464, Denton, TX 76204. *Teaching Methods of Solving Nonstandard Problems.*

It is known that it is difficult for students to solve nonstandard mathematical problems - those that are not directly solved by standard methods, but instead rely on understanding and synthesis of various mathematical ideas. In this talk, numerous strategies and methods that can be used to solve such problems will be presented. A friendly, non-intimidating teaching approach emphasizes the connections between different areas of mathematics and offers several different ways to solve the same problem. Topics covered include functions and their properties, polynomials, trigonometric and transcendental equations and inequalities, optimization, and differential equations. This presentation will appeal to college students, whether preparing for the exam or improving their math skills, as well as anyone who loves math. University professors will be able to use the presented ideas as an additional resource in the classroom to renew the traditional curriculum, stimulate abstract thinking and inspire original thought. (Received August 30, 2019)