Extending the Class of Mathematical Problems Considered in School Education

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The problems of practical importance which are considered in school today necessarily have to lead to a mathematical model that can be solved by school mathematics knowledge. This includes systems of equations of at most second degree, some simple trigonometry and/or some basic geometry. This restricts severely the class of such problems and conveys the impression that mathematics is not applicable enough. We provide examples of problems related to practice which are difficult to solve by means of traditional school mathematics but are amenable for solving (at least with a certain precision) with the use of software systems dealing with mathematical objects.