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Developing the art of seeing the easy when solving problems.

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From the introduction: In this article we will focus on learning the art of seeing the easy, by using an example of a problem posed to future secondary mathematics teachers. De Finetti indicates that it is often difficult to see the easy things, that is, to be able to distinguish, in the complexity of circumstances present in a problem, those that are enough to formulate the problem or that allow one to do the formulation as several successive steps that can be carried out easily. The problem presented below was posed as part of a modeling course. According to Lesh and Doerr, we need to put "students in situations where they are able to reveal, test, and revise/refine/reject alternative ways of thinking." We will first present the strategy used by a group of future teachers, and then an approach gained by looking back at the problem and trying to see it at a glance. We finish with a brief discussion of why it would be worthwhile for prospective teachers to look back at this and other problems.

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Keywords: problem solving strategies; preservice teacher education; teaching; learning to see the easy; alternative approaches; alternative solutions; mathematical model building; geometry; arithmetic series; proportion; area; circles; trapezoids; thinking back about problem solving experiences
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