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Parabolas: connection between algebraic and geometrical representations.

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Summary: A parabola is an interesting curve. What makes it interesting at the secondary school level is the fact that this curve is presented in both its contexts: algebraic and geometric. Being one of Apollonius' conic sections, the parabola is basically a geometric entity. It is, however, typically known for its algebraic characteristics, in particular as the expression of a quadratic function. How do these two entities, the geometric and the algebraic, coincide with one another? In this paper, the author tries to answer this question. The author starts by discussing some definitions of curves, followed by an examination of the relations between them.

Classification: G73 G74 H23 H24
Keywords: geometric concepts; geometry; algebra; grade 9; grade 10
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