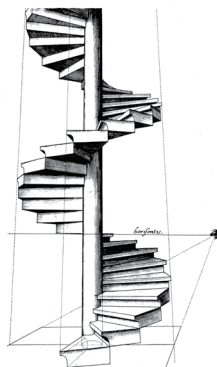




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## AS LIÇÕES DE MONGE E A ARTE DE RESOLVER PROBLEMAS

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### ABSTRACT

This paper describes the geometric reasoning process of Gaspard Monge to find a plane tangent to three spheres, grounded on the problem solving methodology that was published by George Pólya a century and a half later. We seek to highlight geometric strategy for constructing three-dimensional objects based on the relationships and properties of spatial entities, instead of focusing on drawings solutions and projection methods. The subject was extracted from the publication of the lessons in Descriptive Geometry, taught by Monge in 1795. Our main aim is to stress decision processes for solving constructive problems or, in other words, to stress the method of thinking that can be found in those lectures.



[www.aproged.pt/geometriasegraphica2015.html](http://www.aproged.pt/geometriasegraphica2015.html)

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