

In Czech high school level textbooks, the topic of tangents of conic sections is tackled in different manners. In some of the textbooks, the equations are stated with barely any derivations, in others, the derivations are mentioned, but they are different for each conic section. However, the form of the equations implies the existence of an unified principle to describe them, and this work aims to inspect it.

If we plug any point in the equation of the tangent (even such a point that doesn't lie on the conic), we get the equation of a polar line. We will inspect how this topic is covered in Czech textbooks and we will compare their approach.

This work is mainly intended for high school teachers and it is supposed to serve them as a guide to the topic of tangents and polar lines. It includes derivations using university-level mathematics, as well as derivations adapted to the education of mathematics at high schools.