Rectifiable oscillations in ordinary differential equations.
Part 2: methods used in the proofs

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Abstract. As a continuation of the first part, in this second part we present two kinds of auxiliary results: the first one contains two geometric lemmas saying one the rectifiability and unrectifiability of curves in $\mathbb{R}^2$ and the second one is the precise asymptotics near $x = 0$ for all solutions of second-order differential equations. By a lucky combination of previous two kind of results, we obtain an original method for proving the rectifiable and unrectifiable oscillations near $x = 0$ of the main equation. It is presumed some knowledge about the absolute continuous functions and the functions of bounded variation on finite interval, as well as some results from the asymptotic theory of linear ordinary differential equations.