The Riemann hypothesis (RH) may be the most important outstanding problem in mathematics. This third volume on equivalents to RH offers a full presentation of recent results of Nicolas, Rogers–Tao–Dobner, Polymath15, and Matiyasevich. Of particular interest here are derivations which show, assuming all zeros on the critical line are simple, that RH is decidable. Also included is the classical Pólya–Jensen equivalence and related developments of Ono et al.

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