

Das Rätsel des Monats Februar 2016

aus www.zahlenjagd.at

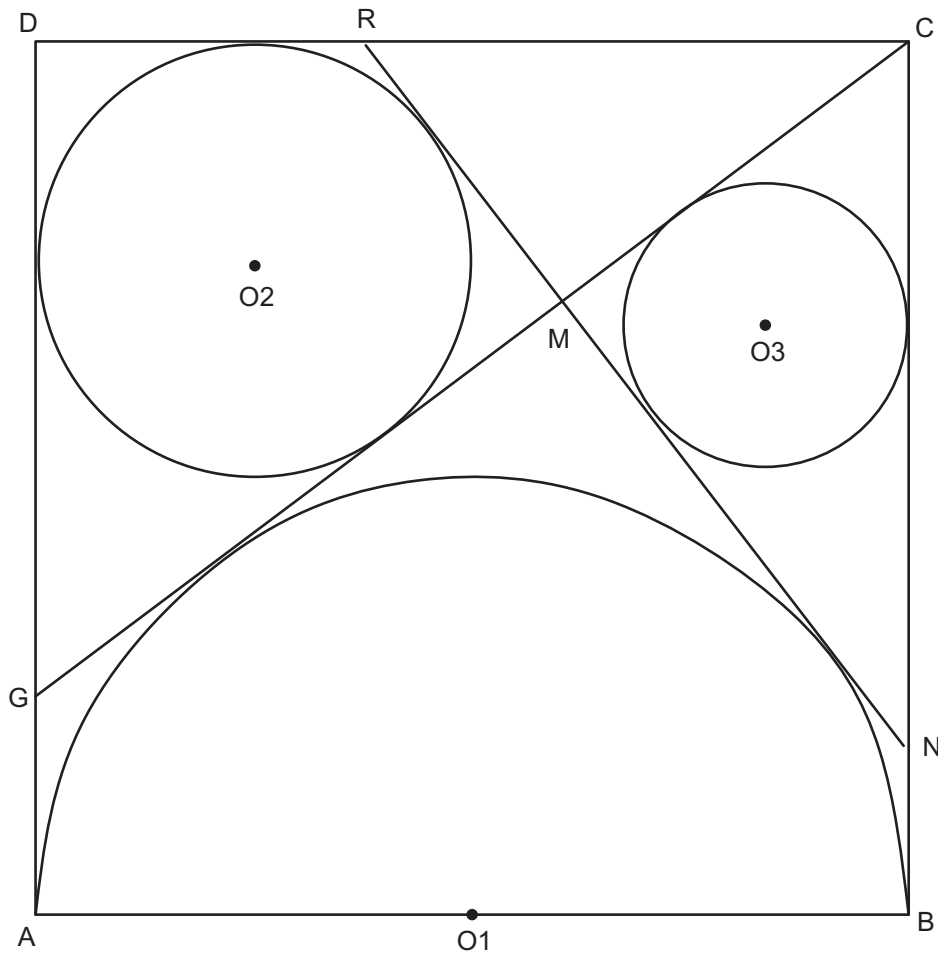


Abbildung 1: Skizze zur Aufgabenstellung

$ABCD$ is a square and the semicircle on AB as diameter, center O_1 , lies within it. CG , where G lies on AD , touches this semicircle, and $O_2(r_2)$ is the incircle of $\triangle CDG$. An external common tangent of the semicircle and $O_2(r_2)$ meets CD in R , BC in N , and intersects CG in M . The circle $O_3(r_3)$ is the incircle of $\triangle CMN$. Calculate the ration of r_2 to r_3 !