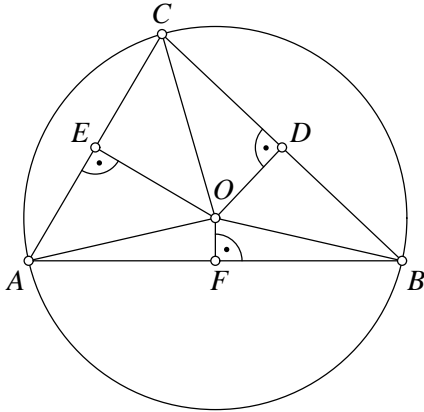


T.1.3 Formeln – Umkreismittelpunkt



$$\begin{aligned} \angle BOC &= 2\alpha, & \angle COA &= 2\beta, & \angle AOB &= 2\gamma, \\ \angle BOD &= \angle COD = \alpha, & \angle COE &= \angle AOE = \beta, & \angle AOF &= \angle BOF = \gamma, \\ \angle DOE &= \alpha + \beta, & \angle EOF &= \beta + \gamma, & \angle FOD &= \gamma + \alpha, \\ \angle BCO &= \angle CBO = 90^\circ - \alpha, & \angle CAO &= \angle ACO = 90^\circ - \beta, \\ \angle ABO &= \angle BAO = 90^\circ - \gamma, \\ AO &= BO = CO = R, \\ DO &= R \cos \alpha, & EO &= R \cos \beta, & FO &= R \cos \gamma, \\ DO + EO + FO &= R + r, \\ a &= 2R \sin \alpha, & b &= 2R \sin \beta, & c &= 2R \sin \gamma, \\ [BOC] &= \frac{R^2}{2} \sin 2\alpha = \frac{aR}{2} \cos \alpha, & [COA] &= \frac{R^2}{2} \sin 2\beta = \frac{bR}{2} \cos \beta, \\ [AOB] &= \frac{R^2}{2} \sin 2\gamma = \frac{cR}{2} \cos \gamma. \end{aligned}$$

(Wird fortgesetzt.)