



$$\overline{AM} = \frac{\overline{CM}}{\tan(\beta)}$$

$$\overline{CF} = 2 * (\overline{AD} - \overline{AM})$$

$$\frac{\sin(C)}{GF} = \frac{\sin(G)}{CF} \Rightarrow 2a = GF = \frac{\overline{CF} * \sin(\alpha)}{\sin(180^\circ - \alpha - \beta)}$$

$$\frac{\sin(\alpha)}{a} = \frac{\sin(G)}{\overline{JI}} \Rightarrow \overline{JI} = \frac{a * \sin(G)}{\sin(\alpha)}$$

$$\frac{\sin(K)}{a} = \frac{\sin(\epsilon)}{\overline{IK}} \Rightarrow \overline{IK} = \frac{a * \sin(\epsilon)}{\sin(K)}$$

$$d = r - \overline{IK}$$

$$b = \sqrt{r^2 - d^2}$$

$$c = \sqrt{(a)^2 - b^2}$$