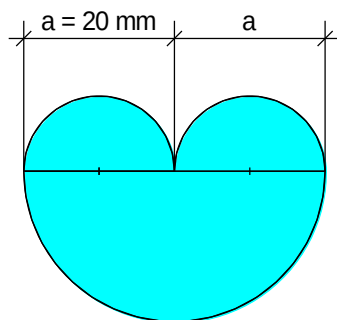


GHK = großer Halbkreis ($r = a = 20 \text{ mm}$)

KK = kleiner Kreis ($r = \frac{a}{2} = 10 \text{ mm}$)



$$A = A_{\text{GHK}} + A_{\text{KK}}$$

$$A_{\text{GHK}} = \frac{a^2 \cdot \pi}{2}$$

$$A_{\text{KK}} = \left(\frac{a}{2}\right)^2 \cdot \pi = \frac{a^2 \pi}{4}$$

$$A = \frac{a^2 \pi}{2} + \frac{a^2 \pi}{4} = \frac{2a^2 \pi}{4} + \frac{a^2 \pi}{4} = \frac{3a^2 \pi}{4}$$

$$A \approx \underline{\underline{9,42 \text{ cm}^2}}$$

$$u = b_{\text{GHK}} + u_{\text{KK}}$$

$$b_{\text{GHK}} = \frac{2a\pi}{2} = a\pi$$

$$u_{\text{KK}} = 2 \cdot \frac{a}{2} \cdot \pi = a\pi$$

$$u = a\pi + a\pi = 2a\pi \approx \underline{\underline{12,6 \text{ cm}}}$$