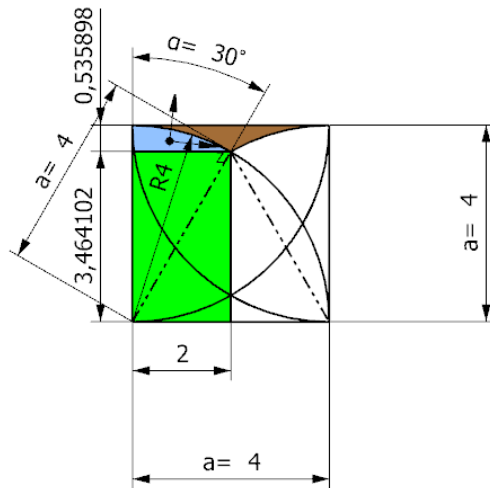




Fläche A21 Quadrat 4×4

$$A_{21} = a \cdot a$$

$$A_{21} = 4 \cdot 4$$

$$A_{21} = 16$$

Fläche grün A22

$$A_{22} = (a / 2) / \tan(\alpha) \cdot (a / 2)$$

$$A_{22} = (4 / 2) / \tan(30) \cdot (4 / 2)$$

$$A_{22} = 6,92820323$$

Fläche blau A23

$$A_{23} = ((r^2 / 2) \cdot (\pi \cdot (\alpha \cdot 2) / 180 - \sin(60))) / 2$$

$$A_{23} = ((4^2 / 2) \cdot (\pi \cdot (2 \cdot 30) / 180 - \sin(60))) / 2$$

$$A_{23} = 0,72468859$$

Fläche grün und blau A24

$$A_{24} = A_{21} + A_{22}$$

$$A_{24} = 6,92820323 + 0,72468859$$

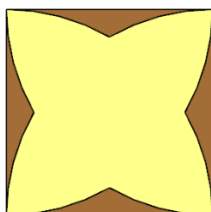
$$A_{24} = 7,65289182$$

Fläche braun A25

$$A_{25} = A_{21} - (2 \cdot A_{24})$$

$$A_{25} = 16 - (2 \cdot 7,65289182)$$

$$A_{25} = 0,69421636$$

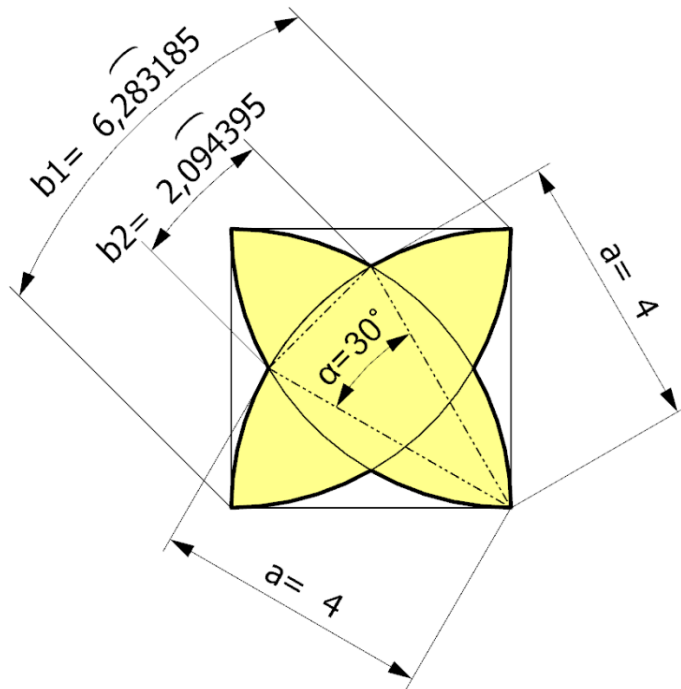


Fläche Figur Gelb A

$$A = A_{21} - (4 \cdot A_{25})$$

$$A = 16 - (4 \cdot 0,69421636)$$

$$A = 13,22313456$$



Umfang berechnen

Kreisbogenlänge

$$b1 = (\alpha / 360) * 2 * \pi * a$$

$$b1 = (90 / 360) * 2 * \pi * 4$$

$$b1 = 6,28318531$$

$$b2 = (\alpha / 360) * 2 * \pi * a$$

$$b2 = (30 / 360) * 2 * \pi * 4$$

$$b2 = 2,09439510$$

Umfang der Figur gelb

$$U = (b1 - b2) * 4$$

$$U = (6,28318531 - 2,09439510) * 4$$

$$U = 16,75516084$$