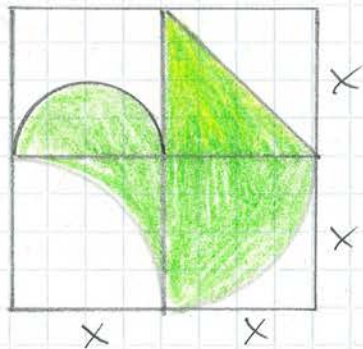


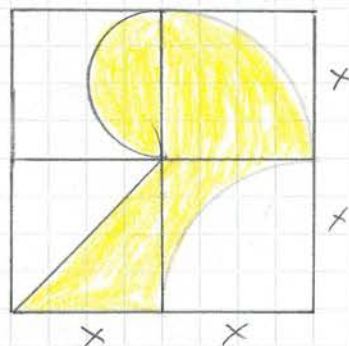
Übungsblatt "Zusammengesetzte Flächen Ü1"

Nr. 1)



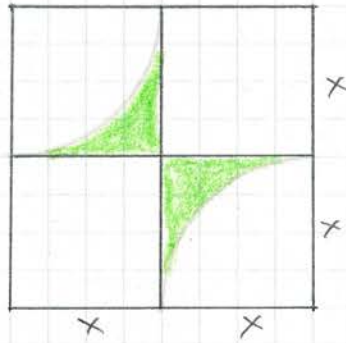
$$\begin{aligned} A &= \text{hl. Quadrat} + \frac{1}{2} \text{hl. Quadrat} + \text{hl. Halbkreis} \\ &= x^2 + \frac{x^2}{2} + \frac{\frac{x^2}{4} \cdot \pi}{2} \\ &= x^2 + \frac{3x^2}{2} + \left(\frac{x^2}{4} \cdot \pi\right) \cdot \frac{1}{2} \\ &= \frac{3x^2}{2} + \frac{x^2 \cdot \pi}{4} \cdot \frac{1}{2} \\ &= \frac{12x^2}{8} + \frac{x^2 \pi}{8} \\ \underline{\underline{A &= \frac{x^2}{8} (12 + \pi)}} \end{aligned}$$

Nr. 2)



$$\begin{aligned} A &= \text{hl. Quadrat} + \frac{1}{2} \text{hl. Quadrat} + \text{hl. Halbkreis} \\ &\rightarrow \text{wie Bsp. 1} \end{aligned}$$

Nr. 3)



$$A = (\text{hl. Quadrat} - \frac{1}{4} \text{ hl. Kreis}) \cdot 2$$

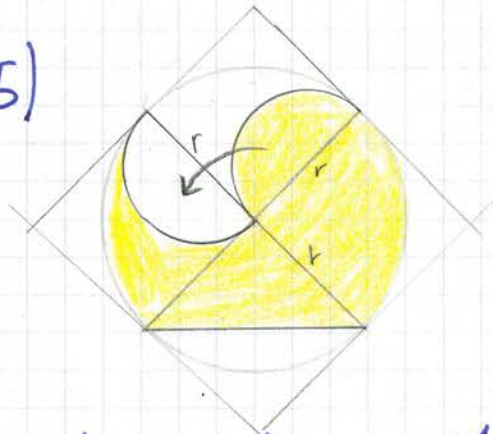
$$= \left( \frac{x^2}{4x^2} - \frac{x^2 \cdot \pi}{x^2 \cdot 4} \right) \cdot 2$$

$$= \frac{x^2}{2} - \frac{x^2 \cdot \pi}{2}$$

$$\underline{\underline{A = \frac{x^2}{2} (4 - \pi)}}$$

$$= \frac{2x^2}{2} - \frac{x^2 \cdot \pi}{2}$$

Nr. 5)



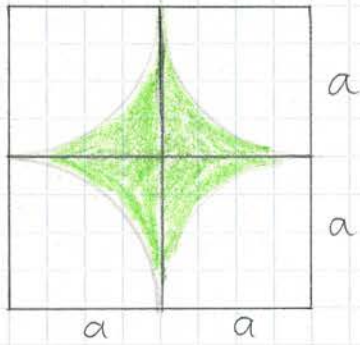
$$A = \frac{1}{2} \text{ Kreis} + \frac{1}{2} \text{ hl. Quadrat}$$

$$= \frac{r^2 \cdot \pi}{2} + \frac{r^2}{2}$$

$$\underline{\underline{A = \frac{r^2}{2} (\pi + 1)}}$$

Nr. 9)

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$$A = \text{pr. Quadrat} - \text{pr. Kreis}$$

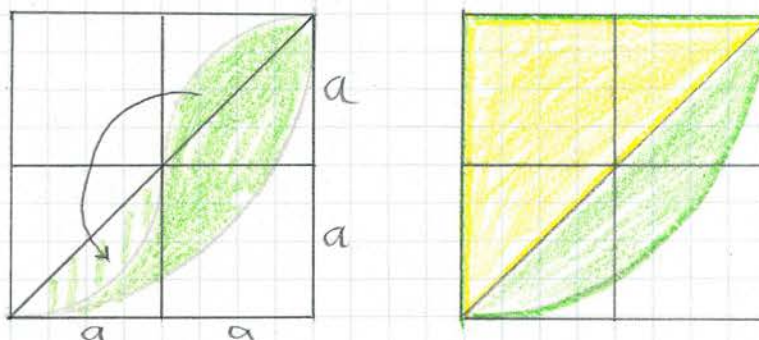
$$= 4a^2 - a^2 \cdot \pi$$

$$\underline{\underline{A = a^2(4 - \pi)}}$$

Flächenaufgabe

Übungsblatt "Zusammengesetzte Flächen Ü 1"

Nr. 8)

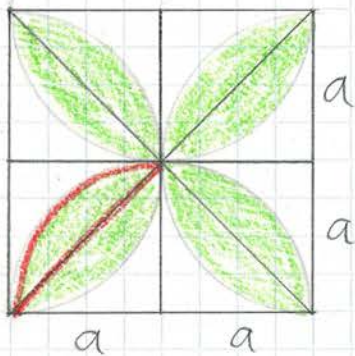


$$\begin{aligned}
 A &= \text{pr. } \frac{1}{4} \text{ Kreis} - \text{pr. } \frac{1}{2} \text{ Quadrat} \\
 &= \frac{(2a)^2 \cdot \pi}{4} - \frac{2 \cdot a^2}{2} \\
 &= \frac{4a^2 \cdot \pi}{4} - 2a^2 \\
 &= a^2 \cdot \pi - 2a^2
 \end{aligned}$$

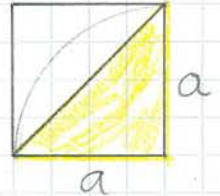
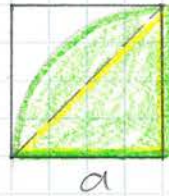
$$\underline{\underline{A = a^2 (\pi - 2)}}$$

Nr. 11)

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8 mal



$$\begin{aligned} A &= \left( \text{hl. } \frac{1}{4} \text{ Kreis} - \frac{1}{2} \text{ hl. Quadrat} \right) \cdot 8 \\ &= \left( \frac{a^2 \cdot \pi}{4} - \frac{a^2}{2} \right) \cdot 8 \\ &= 2a^2\pi - 4a^2 \end{aligned}$$

$$\underline{\underline{A = 2a^2(\pi - 2)}}$$