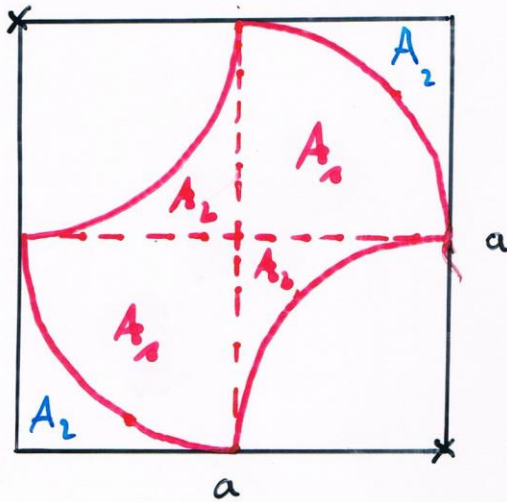
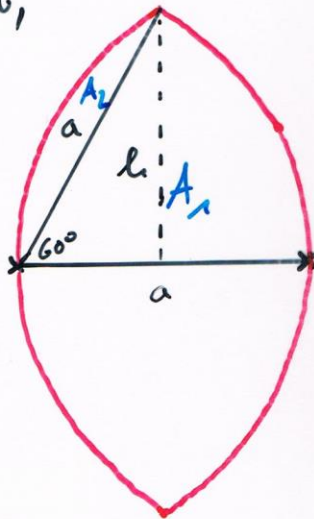


S. 16 / 23a



$$\begin{aligned} A &= 2A_1 + 2A_2 \\ &= 2(A_1 + A_2) \\ &= 2 \cdot \frac{1}{4} a^2 \\ &= \frac{1}{2} a^2 \end{aligned}$$

16/23b,



$$A_1 = \frac{1}{6} \cdot a^2 \pi$$

$$A_2 = A_1 - A_\Delta \text{ mit}$$

$$A_\Delta = \frac{1}{2} \cdot a \cdot h = \frac{1}{2} \cdot a \cdot \frac{\sqrt{3}}{2} a = \frac{\sqrt{3}}{4} a^2$$

$$\text{also } A_2 = \frac{1}{6} a^2 \pi - \frac{\sqrt{3}}{4} a^2$$

$$A_1 = \left( \frac{\pi}{6} - \frac{\sqrt{3}}{4} \right) a^2$$

$$A = 2 \cdot (A_1 + A_2) = 2 \cdot \left( \frac{\pi}{6} + \frac{\pi}{6} - \frac{\sqrt{3}}{4} \right) a^2$$

$$A = \left( \frac{2\pi}{3} - \frac{\sqrt{3}}{2} \right) a^2 = 1,228... a^2 \approx 1,23 a^2$$