

$$\square = a + 2b + 2c + 2d + 4e = 100$$

$$\bigcirc = a + 2b = 25\pi$$

$$\triangle = a + b + 2c + d + 2e = \frac{1}{4} 10^2 \pi = 25\pi$$

$$4d = \square - \bigcirc = 100 - 25\pi$$

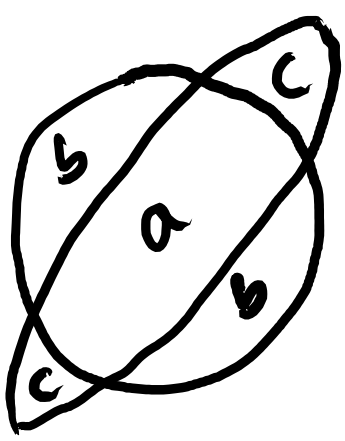
$$\Rightarrow d = 25 - \frac{25}{4}\pi = 25\left(1 - \frac{\pi}{4}\right)$$

$$d = c + 2e$$

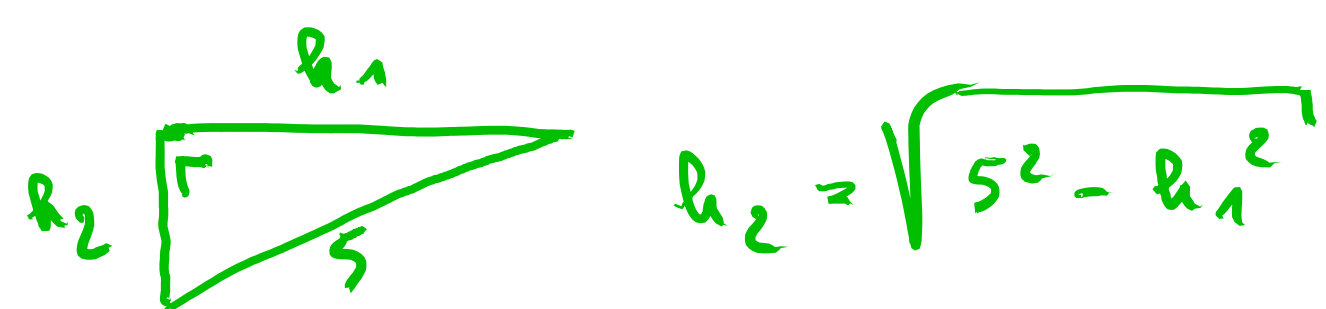
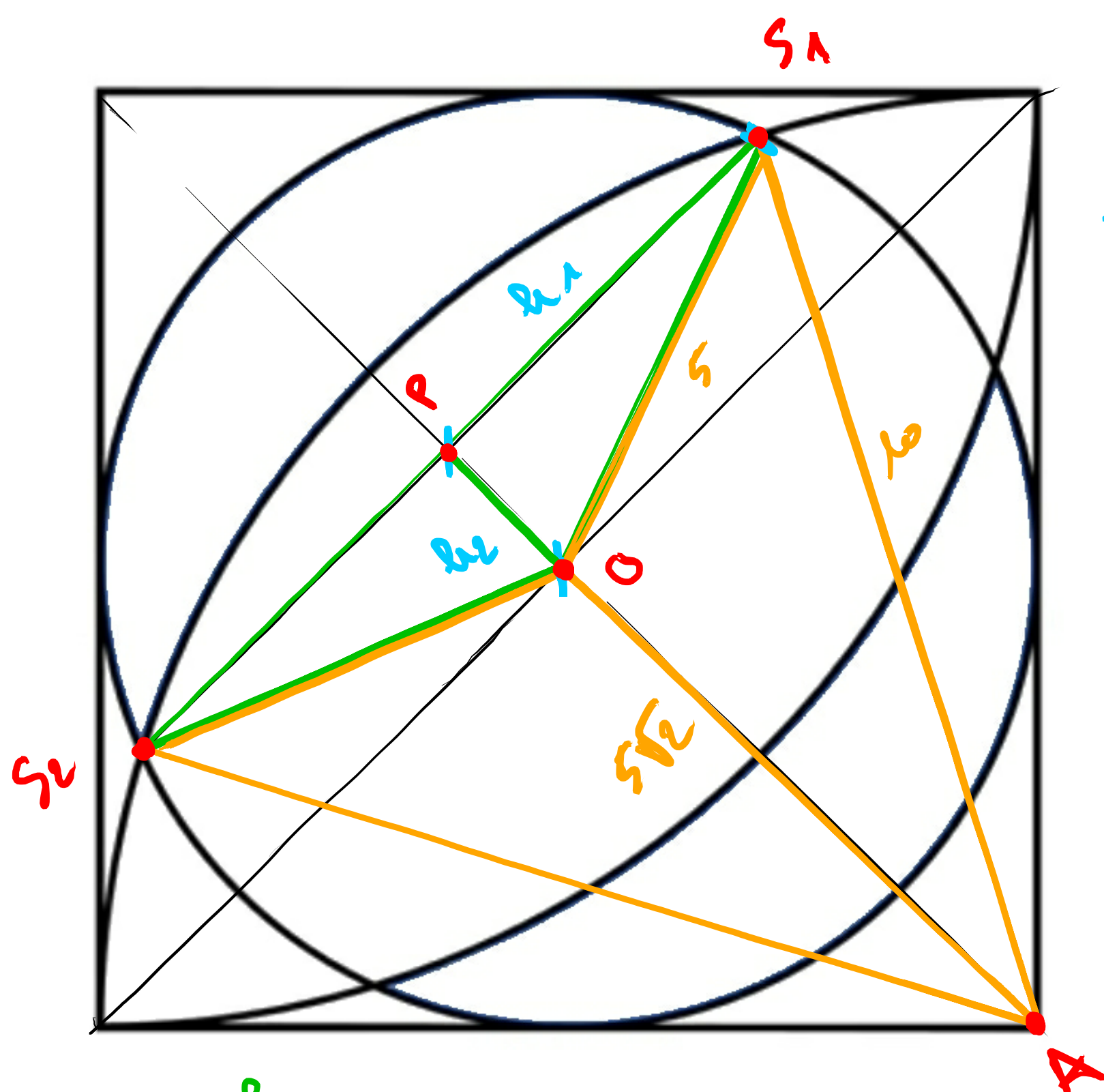
$$\frac{1}{2}(a + 2c) = \triangle - \bigcirc = 0$$

$$= 25\pi - 50$$

$$\Rightarrow a + 2c = 50\pi - 100 = 50(\pi - 2)$$



$$\begin{cases} a + 2b = 25\pi \\ a + 2c = 50\pi - 100 \end{cases}$$



$$h_2 = \sqrt{5^2 - h_1^2}$$

$$\begin{aligned} h_2 &= \sqrt{25 - \left(\frac{5}{2} \frac{\sqrt{7}}{\sqrt{2}}\right)^2} \\ &= \sqrt{25 - \frac{25}{8} \cdot 7} \\ &= \sqrt{\frac{8 \cdot 25 - 7 \cdot 25}{8}} \end{aligned}$$

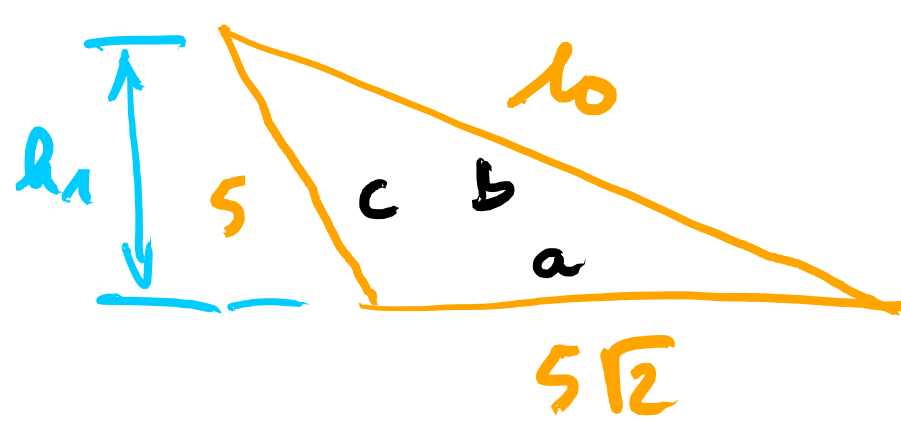
$$h_2 = \frac{5}{2\sqrt{2}}$$

$$A = \frac{1}{2} h_1 \cdot h_2 = \frac{1}{2} \cdot \frac{5}{2} \frac{\sqrt{7}}{\sqrt{2}} \cdot \frac{5}{2\sqrt{2}}$$

$$A = \frac{25}{16} \sqrt{7}$$

$$\begin{aligned} \Rightarrow A_{\Delta S_1 S_2} &= 2 \left(\frac{25}{4} \sqrt{7} + \frac{25}{16} \sqrt{7} \right) = 25 \sqrt{7} \left(\frac{2}{4} + \frac{2}{16} \right) = 25 \sqrt{7} \left(\frac{8+2}{16} \right) \\ &= \frac{125}{8} \sqrt{7} \end{aligned}$$

$$\Rightarrow A_{\Delta O S_1 S_2} = 2 \cdot \frac{25}{16} \sqrt{7} = \frac{25}{8} \sqrt{7}$$



$$\begin{aligned} A &= \frac{1}{2} b \cdot h \\ \Rightarrow h &= 2A \cdot \frac{1}{b} \end{aligned}$$

Heron's formula:

$$s = a + b + c = 15 + 5\sqrt{2}$$

$$A = \sqrt{\frac{s}{2} \left(\frac{s}{2} - a \right) \left(\frac{s}{2} - b \right) \left(\frac{s}{2} - c \right)}$$

$$\frac{s}{2} = \frac{15 + 5\sqrt{2}}{2} \quad (a+b)(a-b) = a^2 - b^2$$

$$A = \frac{1}{4} \sqrt{\dots}$$

$$\frac{s}{2} - a = \frac{15 + 5\sqrt{2}}{2} - 5\sqrt{2} = \frac{15 - 5\sqrt{2}}{2}$$

$$\frac{s}{2} - b = \frac{15 + 5\sqrt{2}}{2} - 10 = \frac{5\sqrt{2} - 5}{2}$$

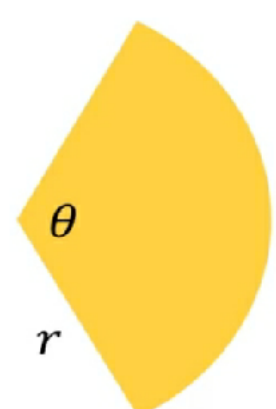
$$\frac{s}{2} - c = \frac{15 + 5\sqrt{2}}{2} - 5 = \frac{5\sqrt{2} + 5}{2}$$

$$A = \frac{1}{4} \sqrt{(225 - 50)(50 - 25)}$$

$$A = \frac{1}{4} \sqrt{175 \cdot 25} = \frac{1}{4} \sqrt{7 \cdot 25^2}$$

$$A = \frac{25}{4} \sqrt{7}$$

$$A = \frac{25}{4} \sqrt{7} \cdot \frac{1}{5\sqrt{2}} = \frac{5}{2} \cdot \frac{\sqrt{7}}{\sqrt{2}}$$



$$\frac{1}{2} r^2 \theta$$



$$\frac{1}{2} r^2 \sin \theta$$

