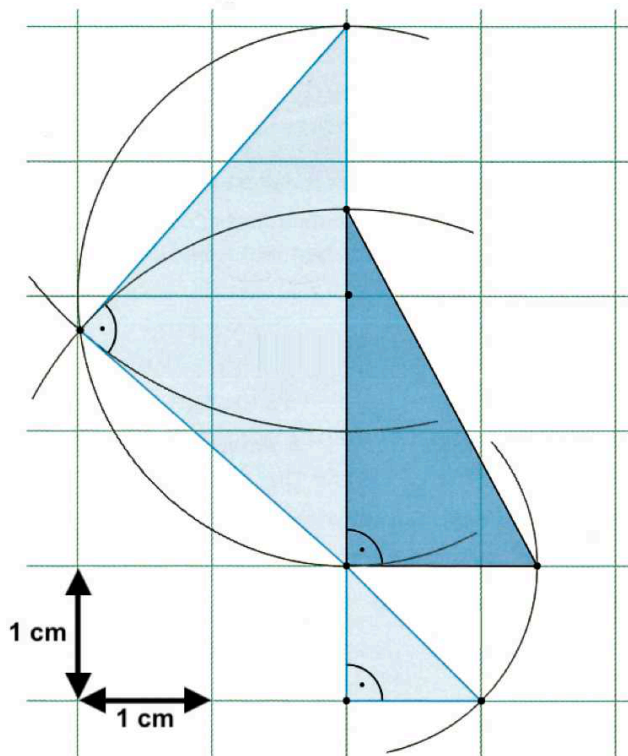


'Dreieckskonstruktion und -berechnung' (Lösung)



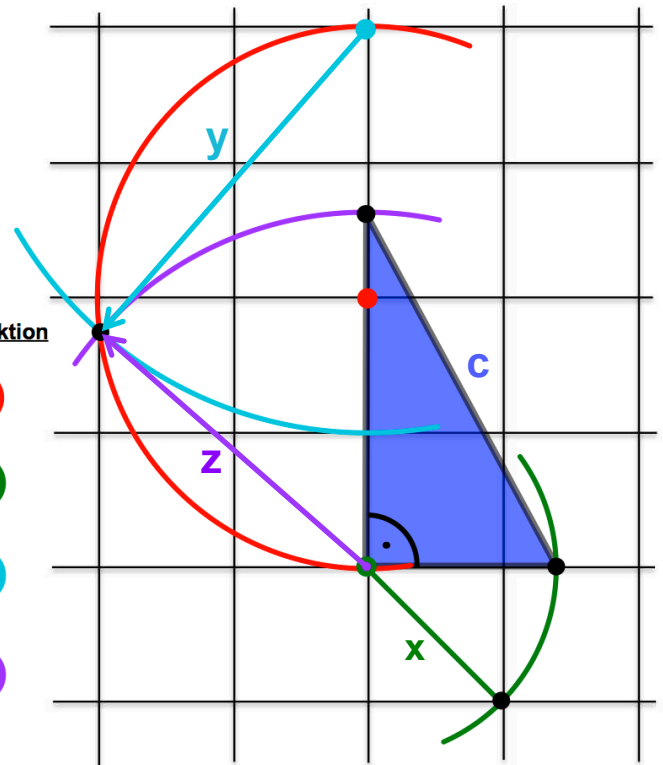
Konstruktion

1.

2.

3.

4.



$$x = \sqrt{2} \cdot 1\text{cm} = \underline{\underline{\sqrt{2}\text{cm}}}$$

$$y = \underline{\underline{3\text{cm}}}$$

$$\begin{aligned} z &= \sqrt{4^2 - y^2} = \sqrt{4^2 - 3^2} = \sqrt{16 - 9} \\ &= \underline{\underline{\sqrt{7}\text{cm}}} \end{aligned}$$

$$\begin{aligned} A &= \frac{x \cdot z}{2} = \frac{\sqrt{2}\text{cm} \cdot \sqrt{7}\text{cm}}{2} = \frac{\sqrt{2 \cdot 7}\text{cm}^2}{\sqrt{4}} \\ &= \sqrt{\frac{14}{4}}\text{cm}^2 = \underline{\underline{\sqrt{\frac{7}{2}}\text{cm}^2}} \end{aligned}$$

$$\begin{aligned} c &= \sqrt{x^2 + z^2} = \sqrt{\sqrt{2}^2 + \sqrt{7}^2} = \sqrt{2 + 7} \\ &= \sqrt{9} = \underline{\underline{3\text{cm}}} \end{aligned}$$

$$u = x + z + c = \underline{\underline{(\sqrt{2} + \sqrt{7} + 3)\text{cm}}}$$