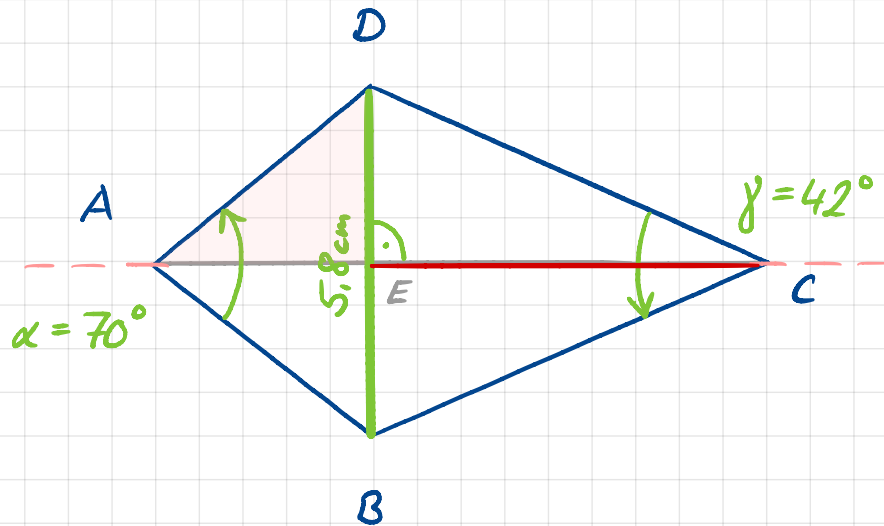


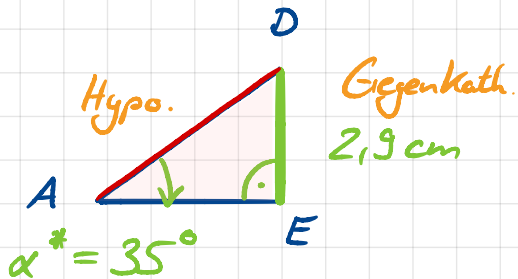
geg: Drachenviereck ABCD, Symmetrieachse AC

$$\overline{BD} = f = 5,8 \text{ cm} \quad \alpha = 70^\circ \quad \gamma = 42^\circ$$

Skizze:



Betrachte $\triangle AEC$:



$$\overline{DE} = 5,8 \text{ cm} : 2 = 2,9 \text{ cm}$$

$$\alpha^* = 70^\circ : 2 = 35^\circ$$



$$\sin 35^\circ = \frac{2,9 \text{ cm}}{\overline{AD}}$$

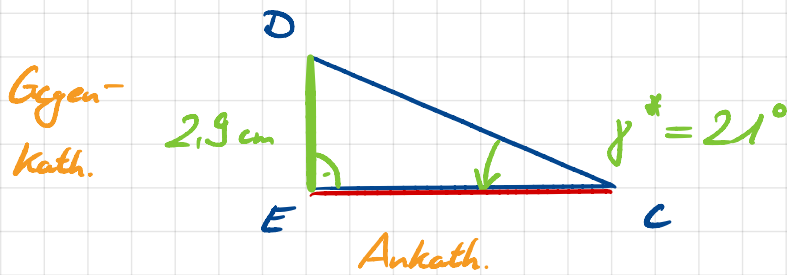
$$\overline{AD} = \frac{2,9 \text{ cm}}{\sin 35^\circ} = 5,06 \text{ cm}$$



$$\tan 35^\circ = \frac{2,9 \text{ cm}}{\overline{AE}}$$

$$\overline{AE} = \frac{2,9 \text{ cm}}{\tan 35^\circ} = 4,14 \text{ cm}$$

a) Betrachte $\triangle ECD$:



$$\overline{DE} = 5,8 \text{ cm} : 2 = 2,9 \text{ cm}$$

$$\gamma^* = 42^\circ : 2 = 21^\circ$$

$$\tan 21^\circ = \frac{2,9 \text{ cm}}{\overline{EC}}$$

$$\overline{EC} = \frac{2,9 \text{ cm}}{\tan 21^\circ} = \underline{\underline{7,55 \text{ cm}}}$$

$$b) \quad \overline{DC} = \sqrt{2,9^2 + 7,55^2} \text{ cm} = \underline{\underline{8,09 \text{ cm}}}$$

$$u = (\overline{AD} + \overline{DC}) \cdot 2$$

$$= (5,06 \text{ cm} + 8,09 \text{ cm}) \cdot 2 = \underline{\underline{26,30 \text{ cm}}}$$

$$c) \quad e = \overline{AC} = \overline{AE} + \overline{EC}$$

$$= 4,14 \text{ cm} + 7,55 \text{ cm} = 11,69 \text{ cm}$$

$$A = \frac{1}{2} \cdot e \cdot f = \frac{1}{2} \cdot 11,69 \cdot 5,8 \text{ cm}^2$$
$$= \underline{\underline{33,90 \text{ cm}^2}}$$