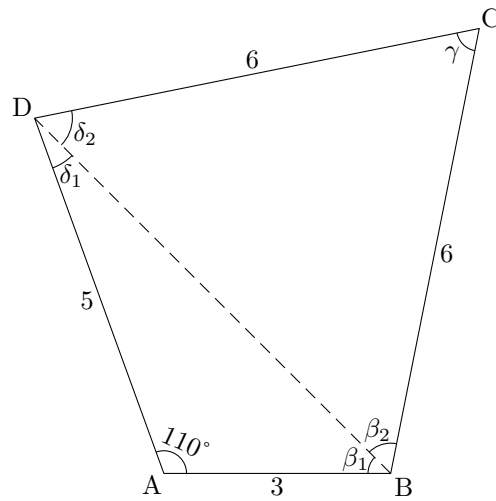


13.3



$$BD^2 = 5^2 + 3^2 - 2 \cdot 3 \cdot 5 \cdot \cos(110^\circ) \approx 44,26$$

$$BD \approx \sqrt{44,26} = 6,65$$

$$\cos(\beta_1) \approx \frac{5^2 - 3^2 - 6,65^2}{-2 \cdot 3 \cdot 6,65} = 0,707\,981$$

$$\beta_1 \approx \arccos(0,707\,981) = 44,93^\circ$$

$$\delta_1 \approx 180^\circ - (110^\circ + 44,93^\circ) = 25,07^\circ$$

$$\mathcal{A}_1 = \frac{1}{2} \cdot 5 \cdot 3 \sin(110^\circ) \approx 7,05$$

$$\cos(\beta_2) \approx \frac{6^2 - 6^2 - 6,65^2}{-2 \cdot 6 \cdot 6,65} = 0,554\,405$$

$$\beta_2 \approx \arccos(0,554\,405) = 56,33^\circ$$

$$\cos(\gamma) \approx \frac{6,65^2 - 6^2 - 6^2}{-2 \cdot 6 \cdot 6} = 0,385\,269$$

$$\gamma \approx \arccos(0,385\,269) = 67,34^\circ$$

$$\delta_2 \approx 180^\circ - (56,33^\circ + 67,34^\circ) = 56,33^\circ$$

$$\mathcal{A}_2 \approx \frac{1}{2} \cdot 6 \cdot 6 \cdot \sin(67,34^\circ) = 16,61$$

$$\beta = \beta_1 + \beta_2 \approx 44,93^\circ + 56,33^\circ = 101,26^\circ$$

$$\delta = \delta_1 + \delta_2 \approx 25,07^\circ + 56,33^\circ = 81,4^\circ$$

$$\mathcal{A} = \mathcal{A}_1 + \mathcal{A}_2 \approx 7,05 + 16,61 = 23,66$$