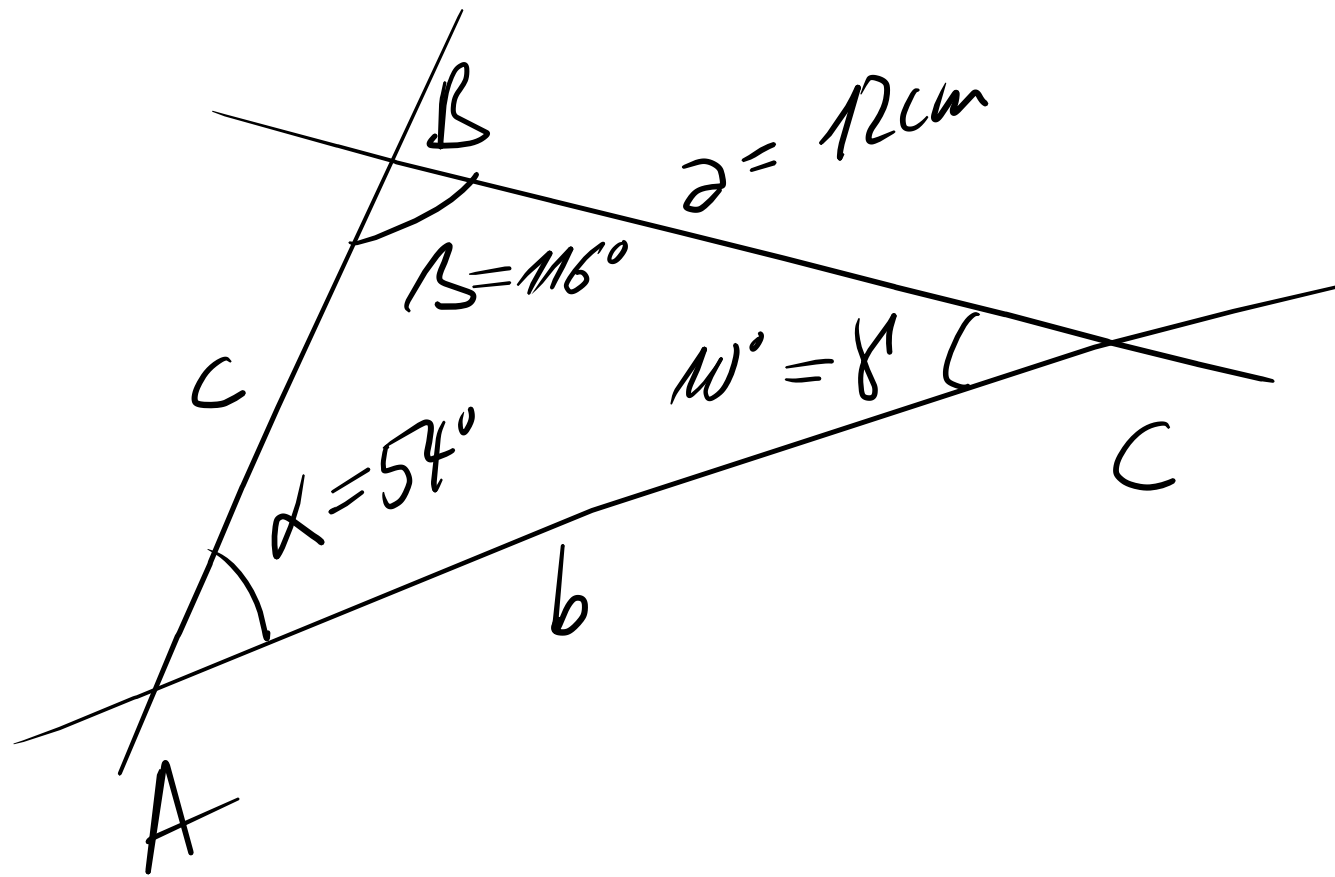


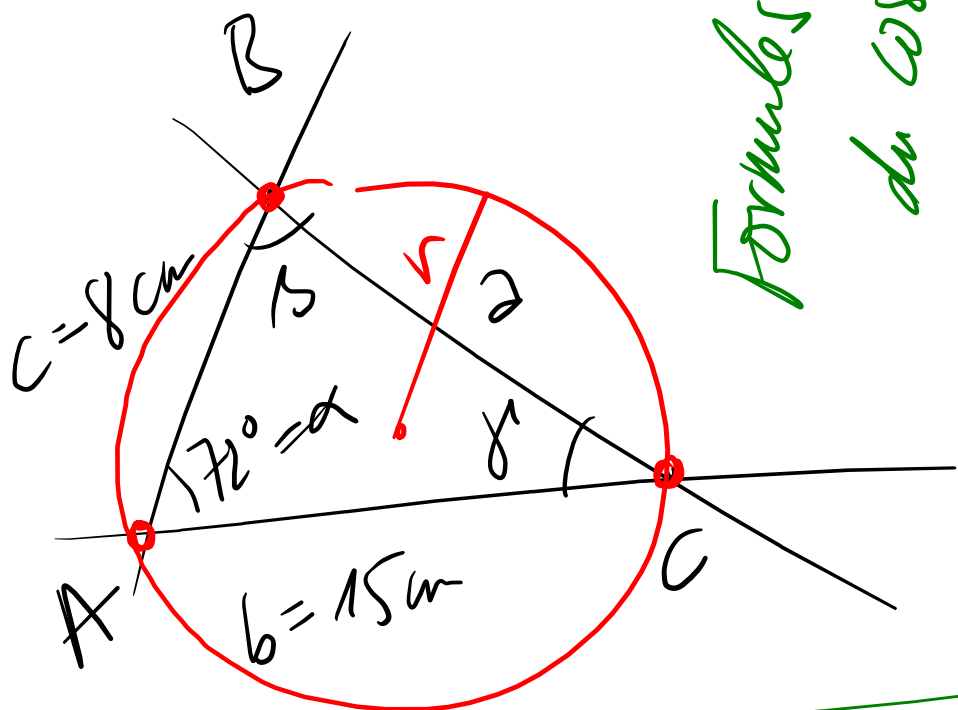
$$\alpha = 54^\circ$$

$$a = 12 \text{ cm}$$

$$\beta = 116^\circ$$

$$\alpha + \beta + \gamma = 180^\circ$$





Formules
du cosinus

$$a^2 = b^2 + c^2 - 2bc \cos \alpha$$

$$b^2 = a^2 + c^2 - 2ac \cos \beta$$

$$c^2 = a^2 + b^2 - 2ab \cos \gamma$$

Formules
du sinus

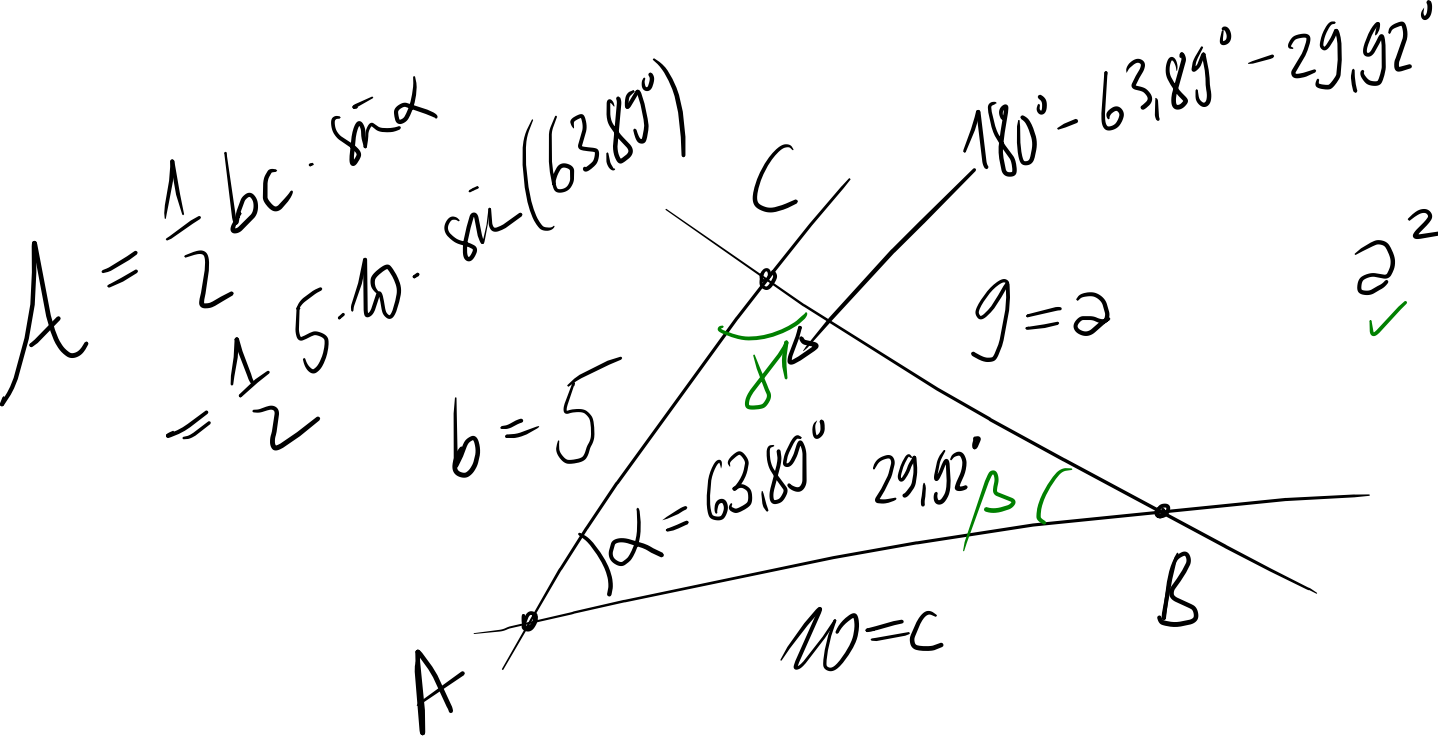
$$\frac{a}{\sin \alpha} = \frac{b}{\sin \beta} = \frac{c}{\sin \gamma} = 2r$$

aire

$$A = \frac{1}{2} ab \sin \gamma$$

$$= \frac{1}{2} bc \sin \alpha$$

$$= \frac{1}{2} ac \sin \beta$$



$$a^2 = b^2 + c^2 - 2bc \cos \alpha$$

$$81 = 25 + 100 - 2 \cdot 5 \cdot 10 \cdot \cos \alpha$$

g	5
$\sin(63,8961)$	$\sin \beta$

$$\sin \beta = \frac{5 \cdot \sin(63,8961)}{g}$$

$$81 - 25 - 100 = -2 \cdot 5 \cdot 10 \cdot \cos \alpha$$

$$-44 = -100 \cdot \cos \alpha$$

$$-100 \cdot \cos \alpha = -44$$

$$\cos \alpha = \frac{-44}{-100} = 0,44$$

$$\alpha \approx \cos^{-1}(0,44)$$

$$\approx 63,89^\circ$$

$$\approx 0,49888757$$

$$\Rightarrow \beta \approx 29,9264^\circ$$

$$63,8961^\circ$$