EX 1

$$\frac{52}{360} = \frac{4,54}{2\pi r} \Leftrightarrow r = \frac{4,54}{2\pi} \cdot \frac{360}{52}$$

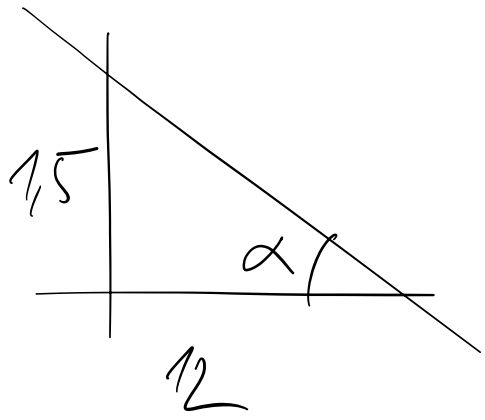
$$\simeq 5,002 \simeq 5$$

$$\frac{S}{\pi \cdot 5^2} = \frac{52}{360} \Leftrightarrow S = \frac{52 \cdot \pi \cdot 25}{360}$$

$$\simeq 11,34$$

L'aire du disque vaut $\pi \cdot 25 \simeq 78,54$

EX 2

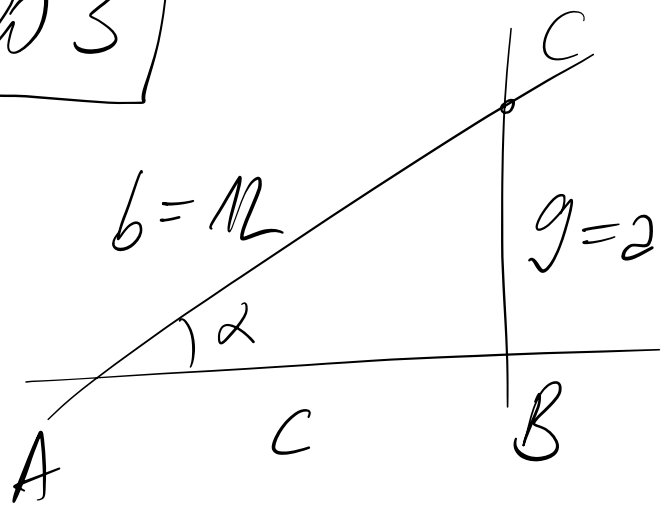


$$\tan\alpha = \frac{1,5}{1,2}$$

$$\alpha = \tan^{-1}(1,25)$$

$$\Rightarrow \alpha \simeq 51,34$$

EX 3



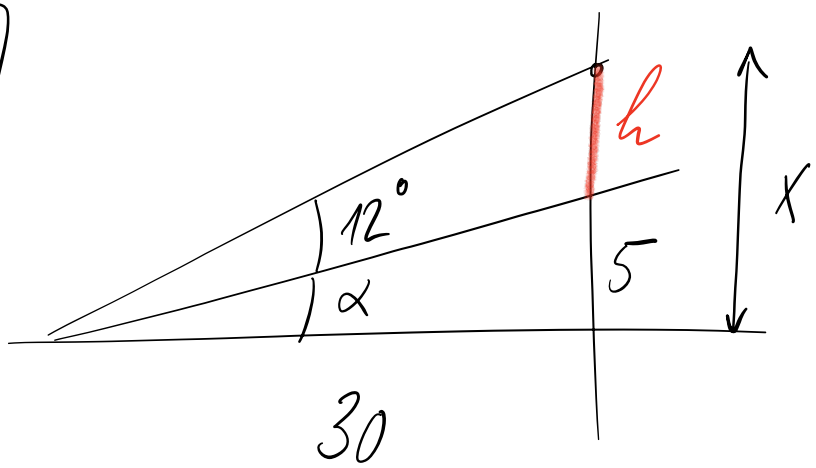
$$\sin\alpha = \frac{9}{12} = \frac{3}{4}$$

$$\alpha = \sin^{-1}(0,75) \simeq 48,6°$$

$$c = \sqrt{12^2 - 9^2} = \sqrt{144 - 81} = \sqrt{63}$$

$$c \simeq 7,94$$

EXO 4



$\alpha + 12° \simeq 21{,}4623°$

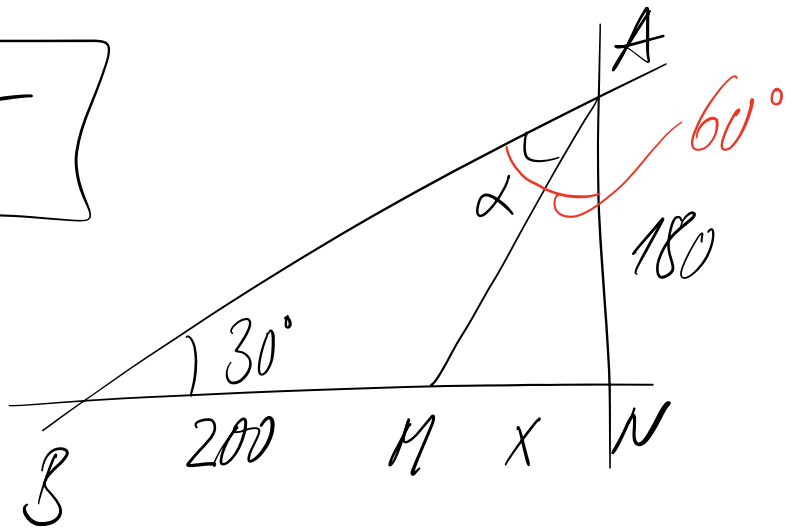
$$\tan\alpha = \frac{5}{30} \Leftrightarrow \alpha = \tan^{-1}\left(\frac{1}{6}\right) \simeq 9{,}4623°$$

$$\tan(21{,}4623°) \simeq \frac{x}{30} \Leftrightarrow x \simeq 30 \cdot \tan(21{,}4623°)$$

$$x \simeq 11{,}7945 \simeq 11{,}8$$

$$h \simeq 11{,}8 - 5 \simeq 6{,}8\ m$$

EXO 5



$$\tan 60° = \frac{200 + x}{180}$$

$$\Rightarrow 180 \cdot \tan 60° = 200 + x$$

$$\Leftrightarrow x = 180 \cdot \tan 60° - 200 \simeq 111{,}7691 \text{ m}$$

$$\alpha = 60° - \tan^{-1}\left(\frac{111{,}7691}{180}\right) \simeq 28{,}1622°$$

$$\sim 31{,}8378°$$

EX 6

$$\frac{\alpha}{360} = \frac{200}{\pi \cdot 25^2} \iff \alpha = \frac{200 \cdot 360}{625\pi}$$

$$\iff \alpha \simeq 36,6693^\circ$$

$$\iff \alpha \simeq 37^\circ$$