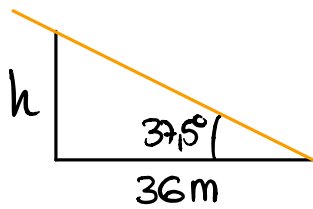
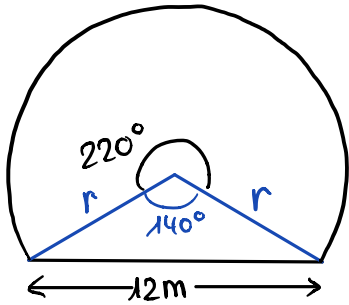


Ex 3.16



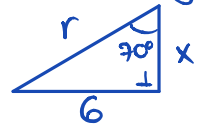
$$\tan(37,5) = \frac{h}{36} \Leftrightarrow h = 36 \cdot \tan(37,5) \cong \underline{27,62 \text{ m}}$$

Ex 3.18



$$* 360 - 220 = 140^\circ$$

On travaille avec le triangle isocèle ou plutôt la moitié de ce triangle, qui est rectangle.

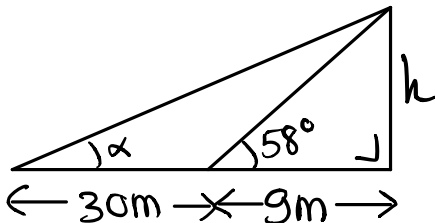


$$* \sin(70) = \frac{6}{r} \Leftrightarrow r = \frac{6}{\sin(70)} \cong \underline{6,39 \text{ m}}$$

$$* \tan(70) = \frac{6}{x} \Leftrightarrow x = \frac{6}{\tan(70)} \cong 2,18 \text{ m}$$

⇒ la hauteur maximum de la voûte au-dessus du sol est égale à $\underline{6,39 + 2,18 \cong 8,57 \text{ m}}$

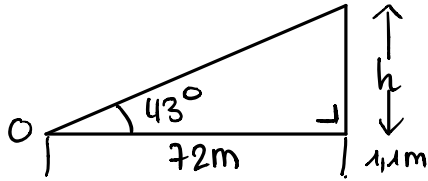
Ex 3.22



$$* \tan(58^\circ) = \frac{h}{9} \Leftrightarrow h = 9 \cdot \tan(58^\circ) \cong 14,4 \text{ m}$$

$$* \tan(\alpha) \cong \frac{14,4}{39} \Leftrightarrow \alpha \cong \tan^{-1}\left(\frac{14,4}{39}\right) \cong \underline{20,27^\circ}$$

Ex 3.25



$$\tan(43^\circ) = \frac{h}{72} \Leftrightarrow h = 72 \cdot \tan(43^\circ) \approx 67,14$$

\Rightarrow la tour mesure environ $67,14 + 1,1 = \underline{68,24 \text{ m}}$.