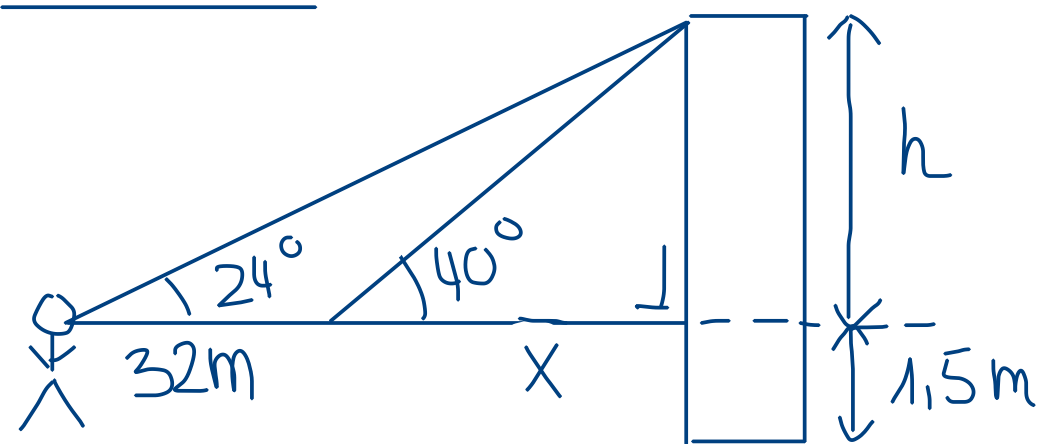


Ex 3.27



$$\begin{cases} \tan(40) = \frac{h}{x} & \Leftrightarrow h = x \cdot \tan(40) \\ \tan(24) = \frac{h}{x+32} \end{cases}$$

subst.

$$\Rightarrow \tan(24) = \frac{x \cdot \tan(40)}{x+32}$$

$$(x+32) \tan(24) = x \cdot \tan(40)$$

$$x \cdot \tan(24) + 32 \cdot \tan(24) = x \cdot \tan(40)$$

$$x \cdot \tan(24) - x \cdot \tan(40) = -32 \tan(24)$$

$$x(\tan(24) - \tan(40)) = -32 \tan(24)$$

$$x = \frac{-32 \tan(24)}{\tan(24) - \tan(40)}$$

$$\approx 36,17$$

$$\Rightarrow h \approx 36,17 \cdot \tan(40) \approx 30,35$$

La hauteur de la tour est de $30,35 + 1,5 = \underline{\underline{31,85\text{m}}}$