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1)

a) $\cos \alpha = 0'52$ y α es agudo.

$$\alpha = \arccos(0'52) = 58'6677$$

$$\operatorname{sen} \alpha = 0'8542$$

$$\operatorname{tg} \alpha = 1'6426$$

Lunes, 18 de mayo.

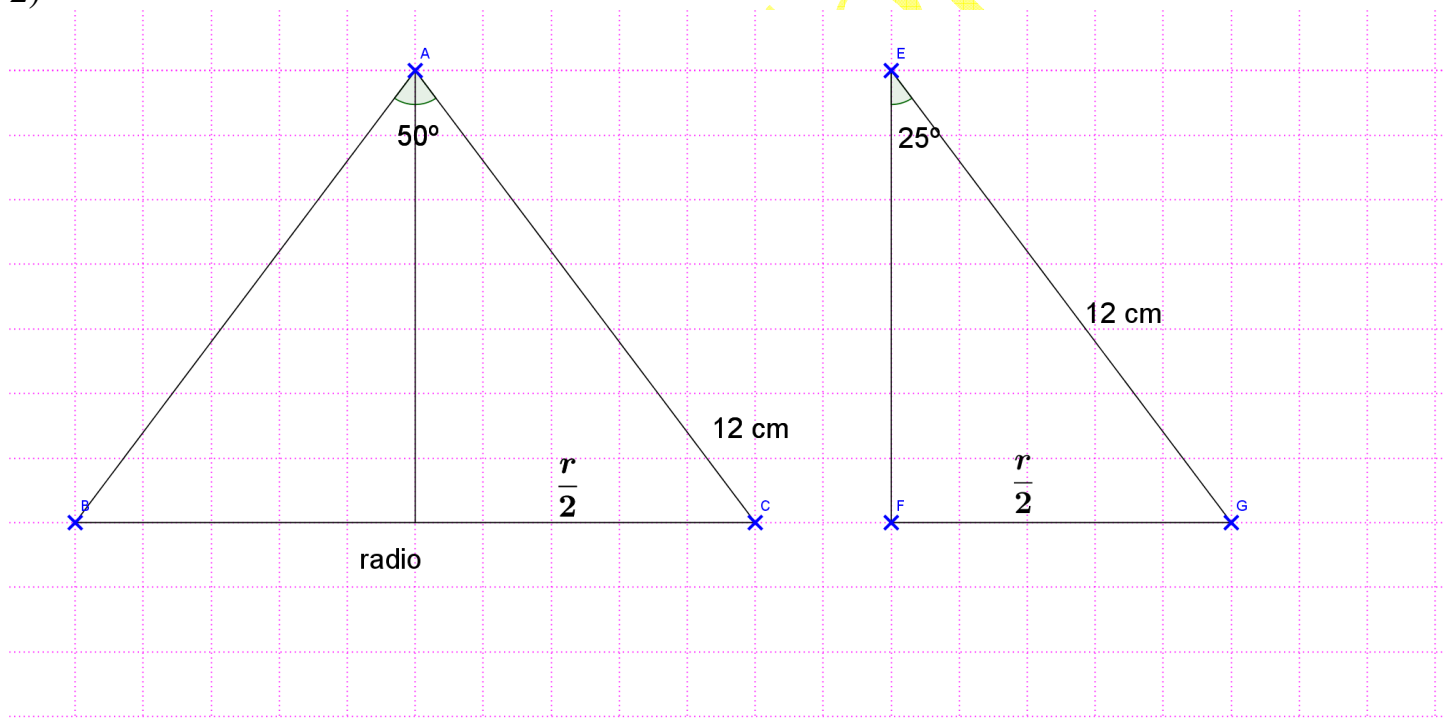
b) $\operatorname{tg} \beta = \frac{12}{5}$ y β es agudo.

$$\beta = \operatorname{arctg}\left(\frac{12}{5}\right) = 67'3801$$

$$\operatorname{sen} \beta = \frac{12}{13} = 0'9231$$

$$\cos \beta = \frac{5}{13}$$

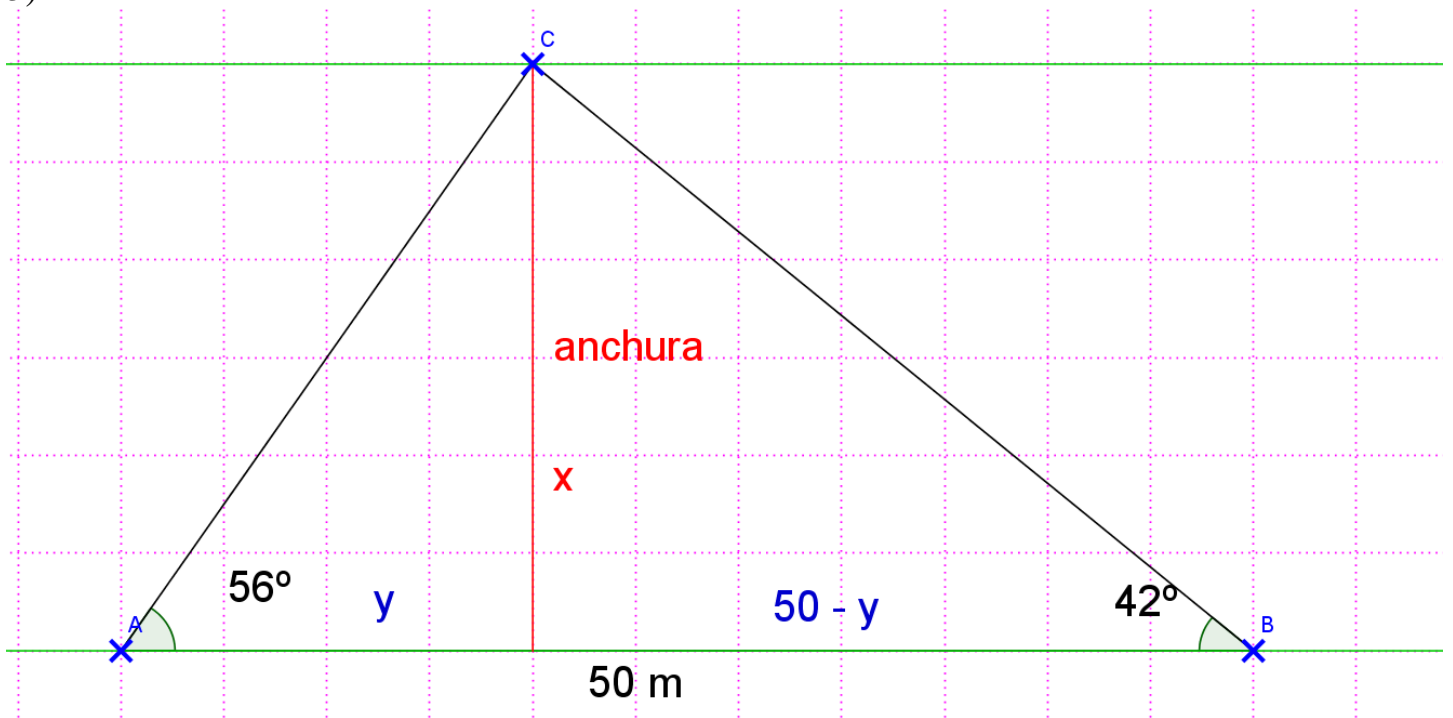
2)



$$\operatorname{sen} 25^\circ = \frac{r/2}{12}; \quad 12 \operatorname{sen} 25^\circ = \frac{r}{2}; \quad r = 2 \cdot 12 \cdot \operatorname{sen} 25^\circ = 10'1428 \text{ cm}$$

Con esa abertura puede trazarse una circunferencia de radio 10'1428 cm.

3)



$$\left\{ \begin{array}{l} \operatorname{tg} 56^\circ = \frac{x}{y} \quad \rightarrow \quad x = y \operatorname{tg} 56^\circ \\ \operatorname{tg} 42^\circ = \frac{x}{50 - y} \end{array} \right.$$

$$\operatorname{tg} 42^\circ = \frac{y \operatorname{tg} 56^\circ}{(50 - y)}; \quad (50 - y) \operatorname{tg} 42^\circ = y \operatorname{tg} 56^\circ; \quad 50 \operatorname{tg} 42^\circ - y \operatorname{tg} 42^\circ = y \operatorname{tg} 56^\circ$$

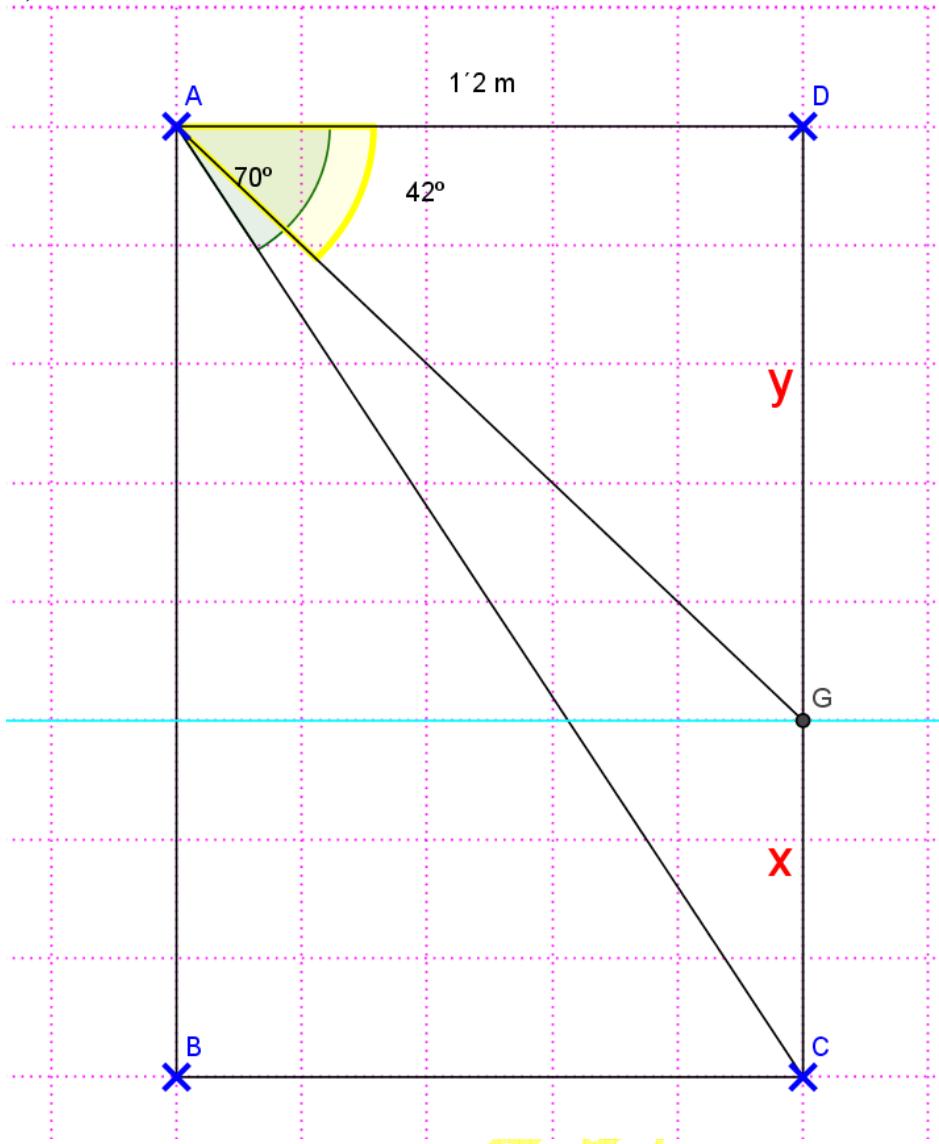
$$50 \operatorname{tg} 42^\circ = y \operatorname{tg} 42^\circ + y \operatorname{tg} 56^\circ$$

$$50 \operatorname{tg} 42^\circ = y (\operatorname{tg} 42^\circ + \operatorname{tg} 56^\circ); \quad y = \frac{50 \operatorname{tg} 42^\circ}{\operatorname{tg} 42^\circ + \operatorname{tg} 56^\circ} \rightarrow$$

$$x = \frac{50 \operatorname{tg} 42^\circ}{\operatorname{tg} 42^\circ + \operatorname{tg} 56^\circ} \operatorname{tg} 56^\circ = 28'0093m$$

La anchura del río es de 28'0093 m

5)



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