

## Sinin, kosinin ja tangentin tärkeksi arvoja

- erilaisilla geom. kaavoilla (esim. Pythag.) voidaan ratkaista joidenkin kulmien tärkeksi sin / cos / tan - arvoja

Esim.  $\sin 60^\circ = \frac{\sqrt{3}}{2}$

- MAA:ssa suositetaan tärkeksi arvoja

317.



$$\tan 30^\circ = \frac{5}{x}$$

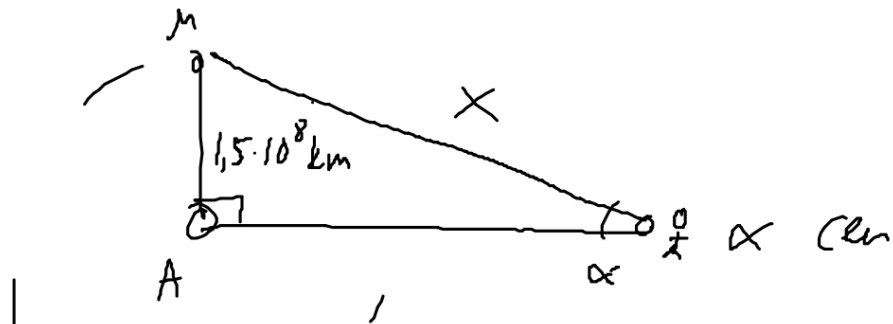
$$\frac{1}{\sqrt{3}} = \frac{5}{x}$$

$$x = 5\sqrt{3}$$

$$A = \frac{5\sqrt{3} \cdot 5}{2}$$

$$V: \underline{\underline{2A = 25\sqrt{3}}}$$

394.



$$\alpha = 0,75'' = \frac{75}{3600}^\circ = 0,020833^\circ$$

S. 36-38:

312, 315, 318, 319,

320...

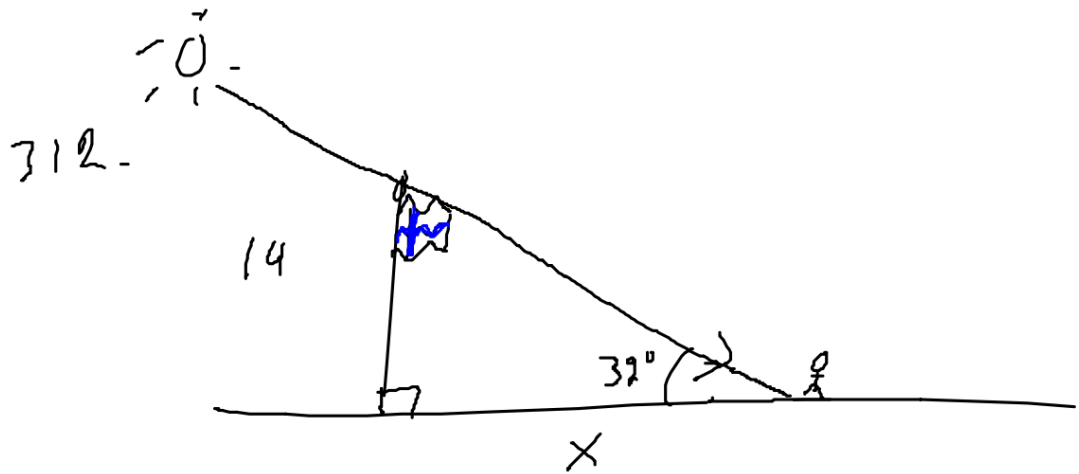
$$\sin 0,020833^\circ = \frac{1,5 \cdot 10^8}{X}$$

$$\frac{3,63610 \cdot 10^{-4}}{1} = \frac{1,5 \cdot 10^8}{X}$$

$$3,63610 \cdot 10^{-4} X = 1,5 \cdot 10^8 \quad || : 3,63610 \cdot 10^{-4}$$

$$V: h. 4 \cdot 10^{11} \text{ km}$$

$$X = \frac{1,5 \cdot 10^8}{3,63610 \cdot 10^{-4}} = 4,13 \cdot 10^{11}$$



$$\tan 32^\circ = \frac{14}{x}$$

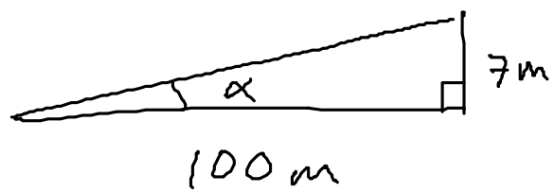
$$\tan 32^\circ \cdot x = 14 \quad || : \tan 32^\circ$$

$$x = \frac{14}{\tan 32^\circ} \approx 22,405$$

∴ u. 22 m

319.

7% in north



$$\tan \alpha = \frac{7}{100}$$

$$\alpha = \tan^{-1} \left( \frac{7}{100} \right) \approx 4.00^\circ$$

$$V: n. 4^\circ$$