

Eindexamen wiskunde B1-2 havo 2004-II

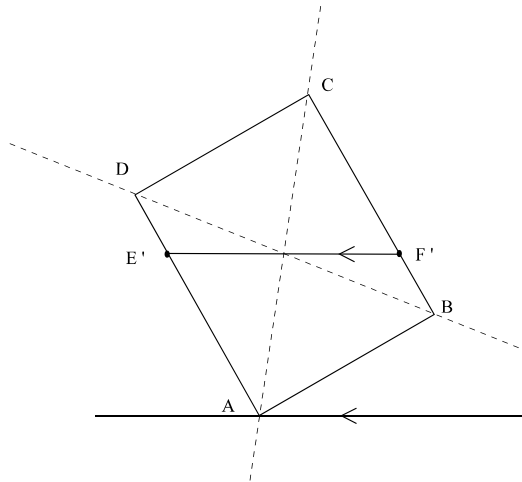
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Olietank

$$12. \quad \pi \cdot r^2 \cdot h = 25 = \pi \cdot (2)^2 \cdot h \rightarrow h = \frac{25}{4\pi} = 1,99$$

De hoogte van de vloeistofspiegel is 1,99 m

13.



$$14. \quad 2 + 2p \cdot (16 - p^2)^{-1/2} = 2 \frac{1}{2} \rightarrow \frac{2p}{\sqrt{16 - p^2}} = \frac{1}{2}$$

$$\sqrt{16 - p^2} = 4p \rightarrow 16 - p^2 = 16 \cdot p^2 \rightarrow p = \sqrt{\frac{16}{17}} = 0,970$$

Of met de GR:

$$y_1 = 2 + 2x(16 - x^2)^{-0.5} \quad y_2 = 2.5$$
$$\text{Intersect } x = 0.970 \quad \rightarrow \quad p = 0,970$$

De afstand van B tot de grond bedraagt 97 cm.