

$$b) \frac{V_2}{V_1} = k^3 = \left(\frac{25 \text{ cm}}{15 \text{ cm}}\right)^3 \approx 4,6296$$

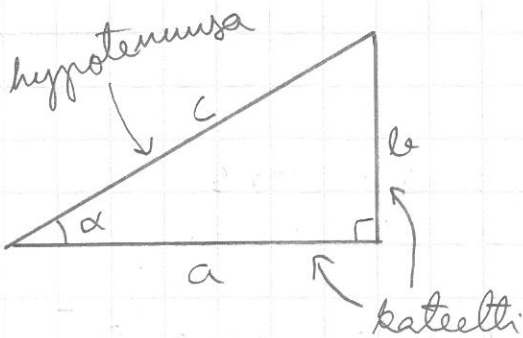
$$\Rightarrow \text{lisämpi} : 4,6296 - 1 = 3,6296 \approx \underline{360 \%}$$

4.24

$$\begin{array}{l} \bigcirc \\ V_1 = 1 \ell \\ A_1 \\ m_1 \\ \frac{m_1}{V_1} \end{array} \quad \begin{array}{l} \bigcirc \\ V_2 = 3 \ell \\ A_2 \\ m_2 \\ \frac{m_2}{V_2} \end{array} \quad \begin{array}{l} \frac{m_2}{m_1} = \frac{\cancel{A_2}}{\cancel{A_1}} = \frac{A_2}{A_1} = k^2 = (\sqrt[3]{3})^2 \approx 2,080 \\ \approx 2,1 \\ \left[\frac{V_2}{V_1} = \frac{3 \ell}{1 \ell} = 3 = k^3 \quad \sqrt[3]{} \quad (\Rightarrow) k = \sqrt[3]{3} \right] \\ \frac{\frac{m_2}{V_2}}{\frac{m_1}{V_1}} = \frac{m_2}{V_2} \cdot \frac{V_1}{m_1} = \frac{m_2}{m_1} \cdot \frac{V_1}{V_2} = 2,080 \cdot \frac{1 \ell}{3 \ell} \\ \approx 0,69336 \end{array}$$

$$\Rightarrow \text{vähemmän} : 1 - 0,69336 = 0,30664 \approx \underline{31 \%}$$

5. Suorakulmaisen kolmion



$$a^2 + b^2 = c^2$$

PYTHAGORAAN LAUSE

$$\sin \alpha = \frac{b}{c}$$

$$\cos \alpha = \frac{a}{c}$$

$$\tan \alpha = \frac{b}{a}$$

5.3 a)



$$\sin \alpha = \frac{2,9 \text{ m}}{8,1 \text{ m}} \Rightarrow \alpha \approx 20,975^\circ \approx \underline{21,0^\circ}$$

$$b) \cos \alpha = \frac{5,3 \text{ m}}{14,2 \text{ m}} \Rightarrow \alpha \approx 68,084^\circ \approx \underline{68,1^\circ}$$