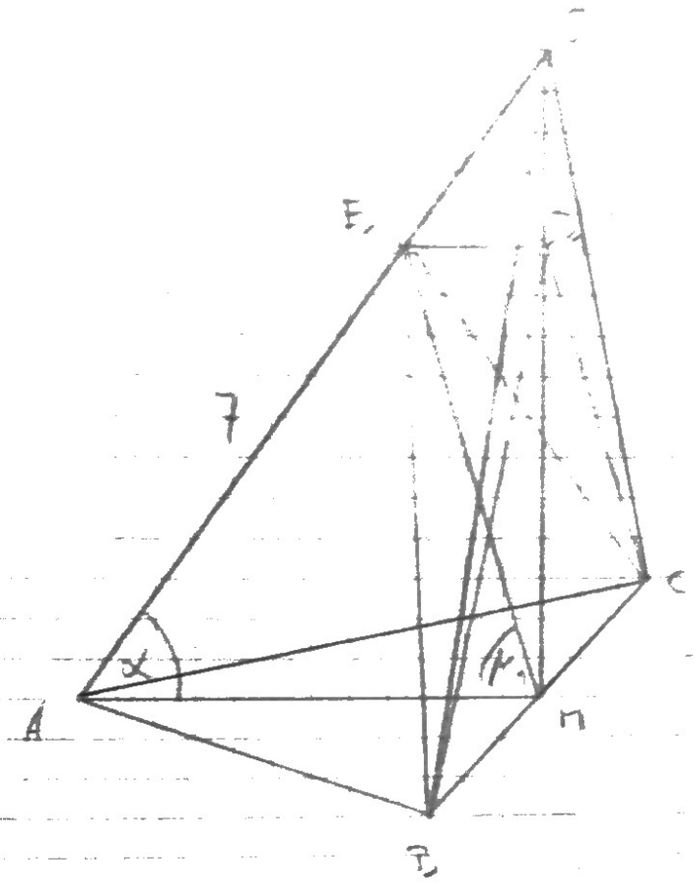
5.13.17

a)



b) $\tan\alpha = \frac{8}{6} \Rightarrow \underline{\underline{\alpha = 53{,}1°}}$

$\overline{AS} = \sqrt{6^2 + 8^2}\ \text{cm} = \underline{\underline{10\ \text{cm}}}$

d) $\overline{E_1M}^2 = (7^2 + 6^2 - 2 \cdot 7 \cdot 6 \cdot \cos 53{,}1°)\text{cm}^2$

$\underline{\underline{\overline{E_1M} = 5{,}88\ \text{cm}}}$; $\frac{5{,}88}{\sin 53{,}1°} = \frac{7}{\sin\mu} \Rightarrow \sin\mu = \frac{7 \cdot \sin 53{,}1°}{5{,}88}$

$\Rightarrow \underline{\underline{\mu = 72{,}2°}}$

e) $\sin 53{,}1° = \frac{\overline{SD_1}}{3} \Rightarrow \overline{SD_1} = 3 \cdot \sin 53{,}1° =$

$\underline{\underline{\overline{SD_1} = 2{,}4\ \text{cm}}}$

$\overline{TD_1} = 8\ \text{cm} - 2{,}4\ \text{cm} = 5{,}6\ \text{cm}$

$\overline{E_2D_1}^2 = (3^2 - 2{,}4^2)\text{cm}^2$

$\underline{\underline{\overline{E_2D_1} = 1{,}8\ \text{cm}}}$

$V = \frac{1}{3} \cdot A_G \cdot h$

$= \frac{1}{3} \cdot \underbrace{\frac{1}{2} \cdot 8 \cdot 5{,}6}_{A_G} \cdot \underbrace{1{,}8\ \text{cm}}_{\overline{E_2D_1} = h}{}^3 = 13{,}44\ \text{cm}^3$