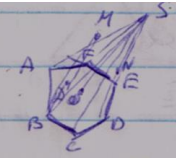


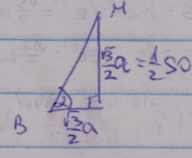
3.9
8

(1)



$MN \parallel AD \Leftrightarrow \Delta ASD \text{ pilynt } \gamma \text{ } MN$
 Eil sanG ABCD $MN = \frac{1}{2} AD$
 $AD \parallel BC$
 $BC = \frac{1}{2} AD \leftarrow \text{ly } \beta \text{ mhe eam } \Delta AOB$
 mdirpn MNCB $\leftarrow MN \parallel BC, MW = BC$

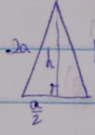
(3.5.3) $\Delta NDB \cong \Delta MAC \Leftrightarrow \sphericalangle SDB = \sphericalangle SAC \Leftrightarrow (3.3.3) \Delta SDB \cong \Delta SAC$
 pfn MNCB \Leftrightarrow pfn MNCB \Leftrightarrow pfn MNCB $\Leftrightarrow NB = MC \Leftrightarrow$



apkef B - n pjk 3.7.1] owt f M - n pjk 3.7.1]
 $\frac{\sqrt{3}a}{2} = \frac{1}{2} SO$
 $BF = \sqrt{AB^2 + AF^2 - 2AB \cdot AF \cos 120} = \sqrt{3}a$
 $SO = \sqrt{SA^2 - AO^2} = \sqrt{3}a$
 $\tan \alpha = \frac{\frac{\sqrt{3}a}{2}}{\frac{a}{2}} = \frac{\sqrt{3}}{1} \rightarrow \alpha = 45^\circ$

(2)

$$\frac{p \cdot Q}{p \cdot j \cdot \theta} = \frac{p \cdot Q}{0 \cdot i \cdot o \cdot z \cdot n} + 6 \cdot \frac{p \cdot Q}{m \cdot n \cdot 3 \cdot 3 \cdot 3 \cdot k \cdot l \cdot o} = 6 \cdot \frac{\sqrt{3}}{4} a^2 + 6 \cdot \frac{a \sqrt{3} a}{2} = \frac{3\sqrt{3}}{2} a^2 + \frac{3\sqrt{3}}{4} a^2 = \frac{3}{2} \sqrt{3} a^2 (1 + \sqrt{5})$$



$$h = \sqrt{4a^2 - \frac{a^2}{4}} = \sqrt{\frac{3}{4}} a$$

$$V = \frac{1}{3} \cdot SO \cdot \frac{p \cdot Q}{0 \cdot i \cdot o \cdot z \cdot n} = \frac{1}{3} \cdot \sqrt{3} a \cdot \frac{\sqrt{3}}{2} \cdot 3a^2 = \frac{3a^3}{2}$$