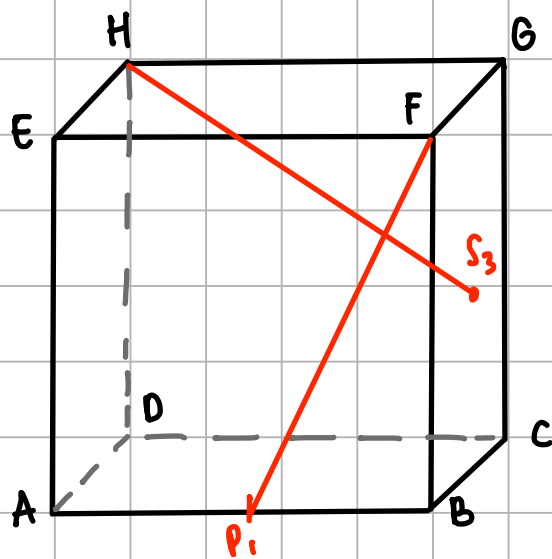


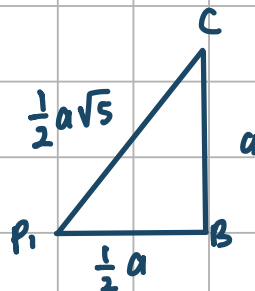
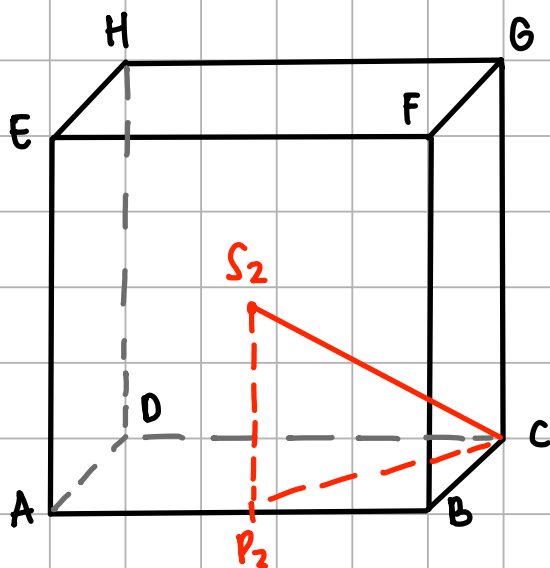
1. P_1F tegak lurus dengan HS_3



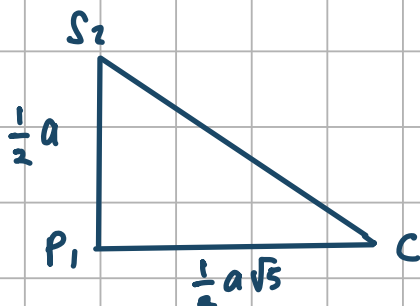
$$\left. \begin{array}{l} FG \perp BF \\ FG \perp EF \end{array} \right\} FG \perp \text{ABFE} \\ FG \perp P_1F$$

$$\left. \begin{array}{l} P_1F \perp Q_2Q_3 \\ P_1F \perp EQ_2 \end{array} \right\} P_1F \perp EQ_2Q_3H \\ P_1F \perp HS_3$$

2. Jarak C ke S_2

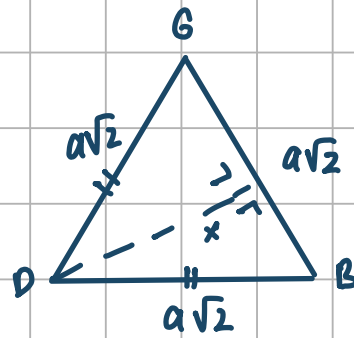
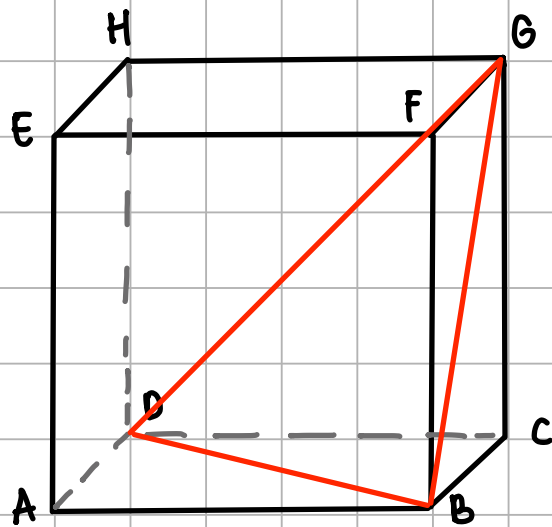


$$\begin{aligned} P_1C &= \sqrt{\left(\frac{1}{2}a\right)^2 + a^2} \\ &= \sqrt{\frac{1}{4}a^2 + a^2} \\ &= \sqrt{\frac{5}{4}a^2} \\ &= \frac{\sqrt{5}}{2}a \end{aligned}$$



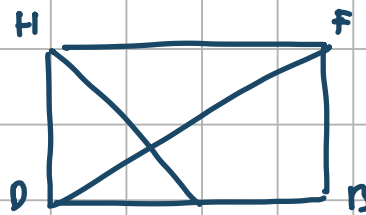
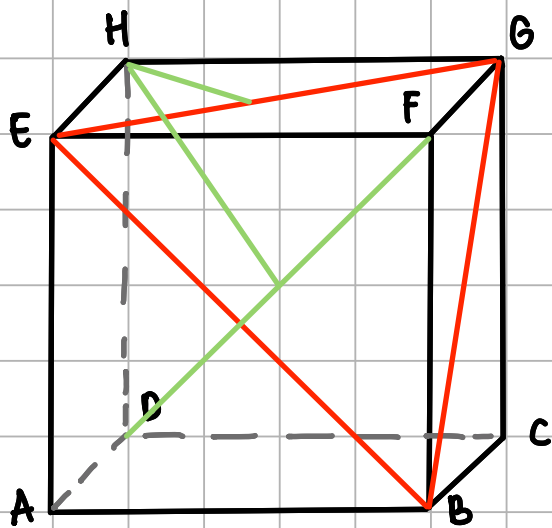
$$\begin{aligned} S_2C &= \sqrt{\left(\frac{1}{2}a\right)^2 + \left(\frac{1}{2}a\sqrt{5}\right)^2} \\ &= \sqrt{\frac{1}{4}a^2 + \frac{5}{4}a^2} \\ &= \sqrt{\frac{6}{4}a^2} = \frac{1}{2}a\sqrt{6} // \end{aligned}$$

3. Jarak D ke GB



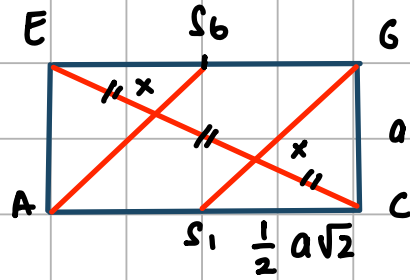
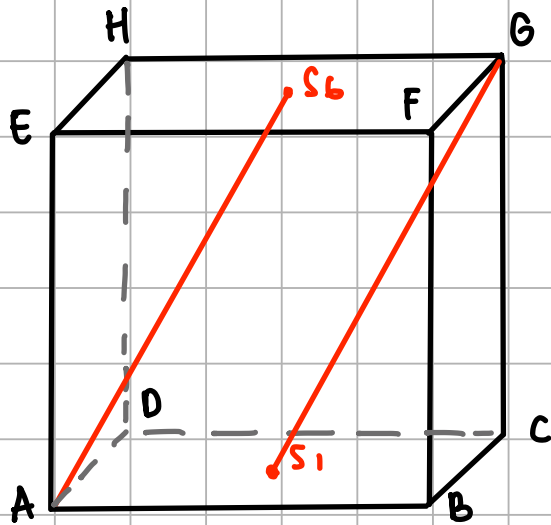
$$\begin{aligned} x &= \sqrt{(a\sqrt{2})^2 - \left(\frac{1}{2} a\sqrt{2}\right)^2} \\ &= \sqrt{2a^2 - \frac{1}{2} a^2} \\ &= \sqrt{\frac{3}{2} a^2} = a\sqrt{\frac{3}{2}} // \end{aligned}$$

4. Jarak H ke BEG



$$\frac{2}{3} \cdot \frac{1}{2} a\sqrt{6} = \frac{1}{3} a\sqrt{6}$$

5. Jarak antara GS_1 & AS_6



$$\begin{aligned} GS_1 &= \sqrt{GC^2 + CS_1^2} \\ &= \sqrt{a^2 + \left(\frac{1}{2}a\sqrt{2}\right)^2} \\ &= a\sqrt{\frac{3}{2}} \end{aligned}$$

$$L_{GC S_1} = L_{GC S_1}$$

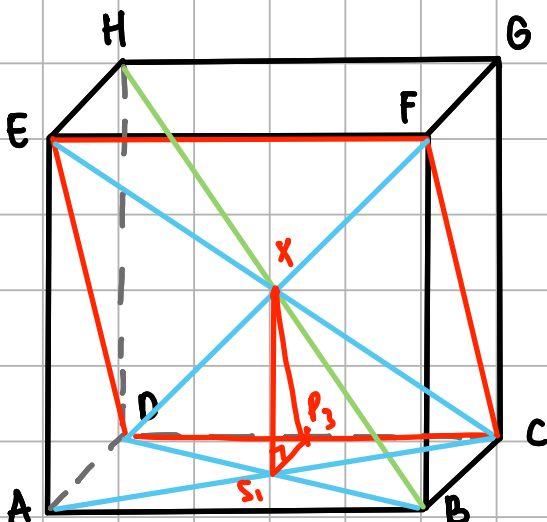
$$\frac{1}{2} GC \cdot CS_1 = \frac{1}{2} GS_1 \cdot CY$$

$$CY = \frac{GC \cdot CS_1}{GS_1}$$

$$CY = \frac{a \cdot \frac{1}{2} a \sqrt{2}}{a \sqrt{\frac{3}{2}}}$$

$$d = XY = CY = \frac{a\sqrt{3}}{3} //$$

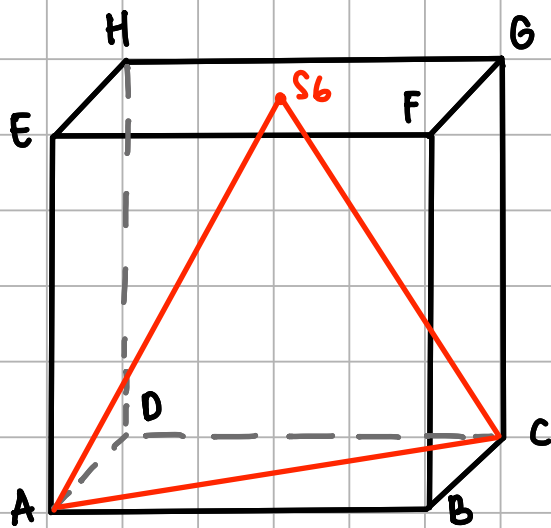
6. Jarak antara CD & BH



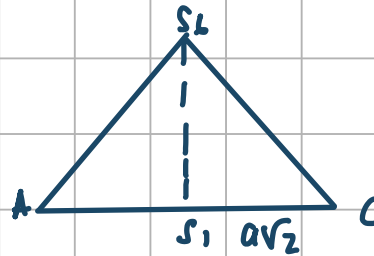
$$\begin{aligned} d = Xp_3 &= \sqrt{XS_1^2 + S_1P_3^2} \\ &= \sqrt{\left(\frac{1}{2}a\right)^2 + \left(\frac{1}{2}a\right)^2} \\ &= \sqrt{\frac{1}{2}a^2} \end{aligned}$$

$$d = \frac{a}{\sqrt{2}} = \frac{a\sqrt{2}}{2} //$$

7. Proyeksi AS_6 terhadap garis AC

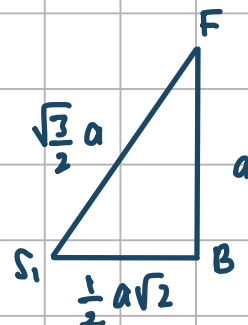
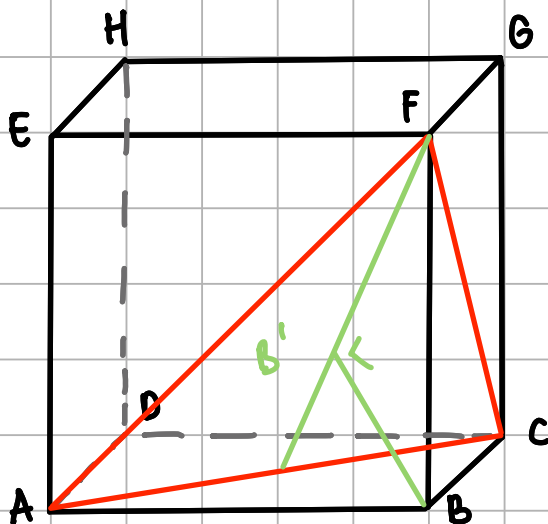


Hasil proyeksi : AS_1



panjang proyeksi : panjang AS_1
 $= \frac{1}{2}$ panjang AC
 $= \frac{1}{2} \sqrt{2} a$

8. Proyeksi FB terhadap ACF



Hasil proyeksi : FB'

Luas Δ = Luas Δ

$$\frac{1}{2} \overline{S_1B} \cdot \overline{BF} = \frac{1}{2} \overline{S_1F} \cdot \overline{BB_1}$$

$$\frac{1}{2} \sqrt{2} a \cdot a = \sqrt{\frac{3}{2}} a \cdot \overline{BB_1}$$

$$\frac{\sqrt{2}}{2} \cdot \frac{\sqrt{2}}{\sqrt{3}} a = \overline{BB_1}$$

$$\overline{BB_1} = \frac{\sqrt{3}}{3} a$$

Panjang $B'F$

$$\overline{B'F} = \sqrt{FB^2 - BB_1^2}$$

$$= \sqrt{a^2 - \frac{1}{3}a^2}$$

$$= \sqrt{\frac{2}{3}a^2}$$

$$= \sqrt{\frac{2}{3}} a$$

$$\overline{B'F} = \frac{\sqrt{6}}{3} a$$

panjang proyeksi = $\frac{\sqrt{6}}{3} a$