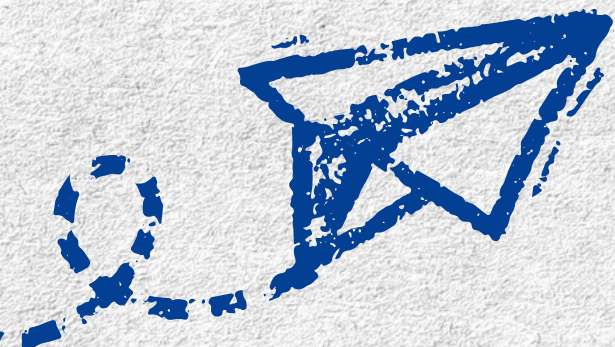
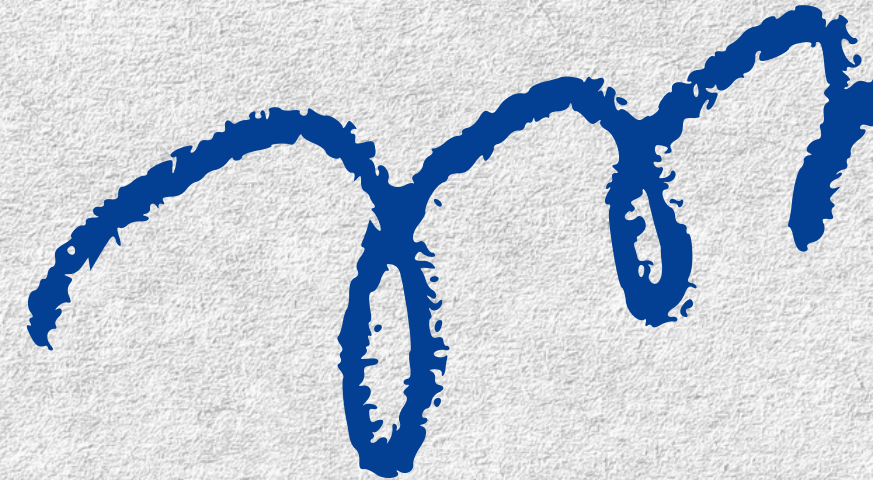


XII MIPA 9

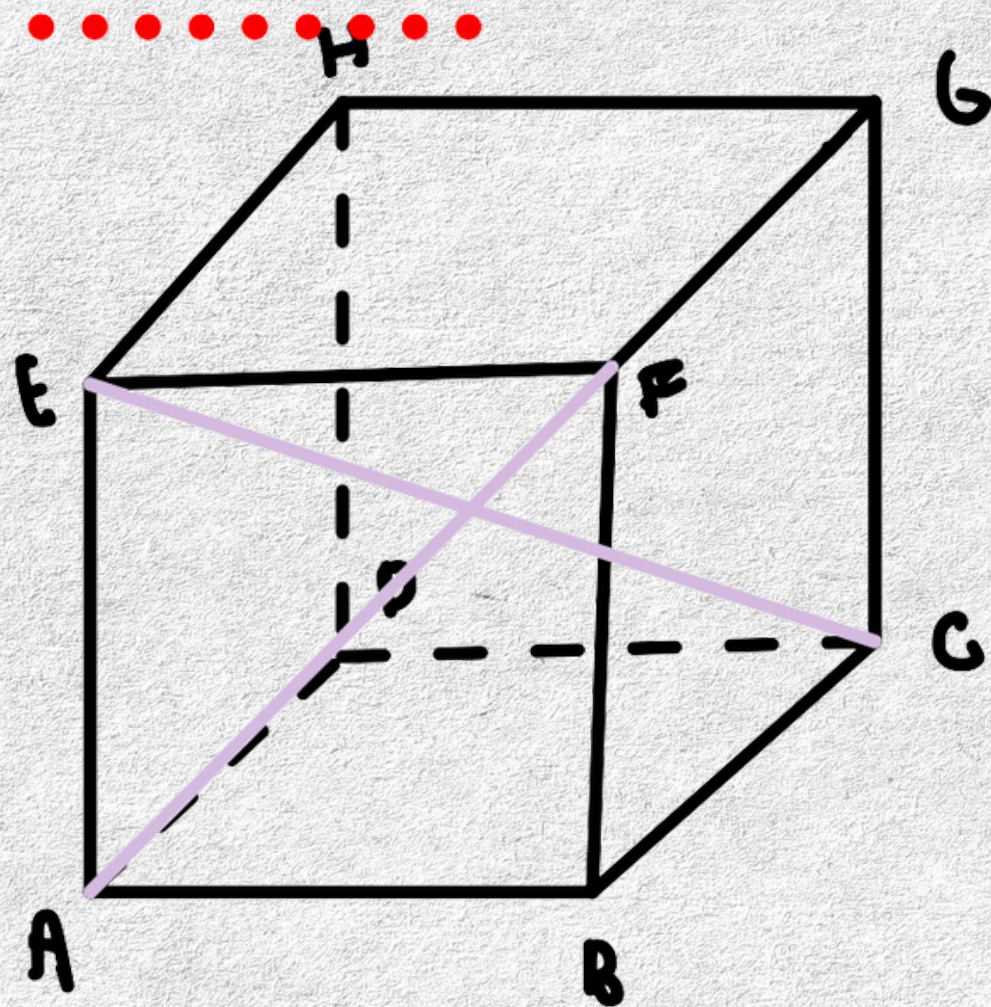
DIMENSI 3

Adrienne Go / 03 Jovita Alim / 21 Konstantin / 26



A. CE TEGAK LURUS AF

a) buktikan $CE \perp AF$



$$BC \perp AB$$

$$BC \perp BF$$

$$BC \perp \text{ABEF}$$

$$BC \perp AF$$

$$AF \perp BE$$

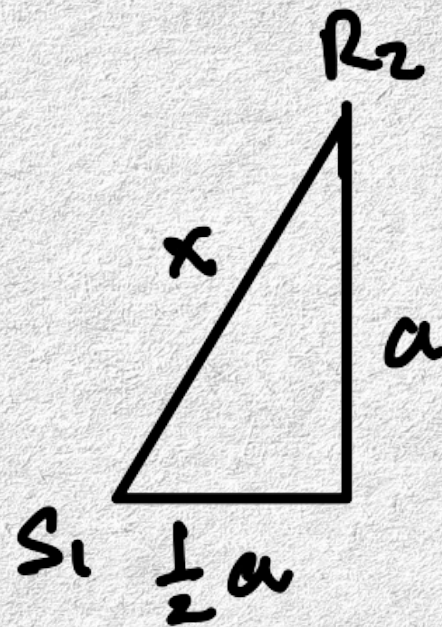
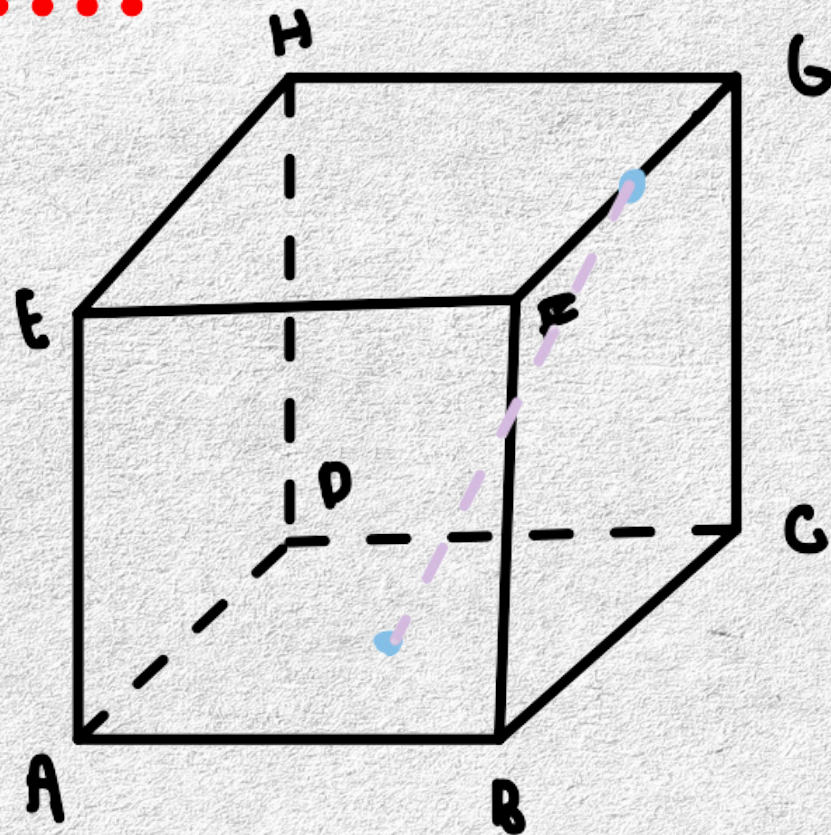
$$AF \perp \text{BCEH}$$

$$\underline{\underline{AF \perp CE}}$$

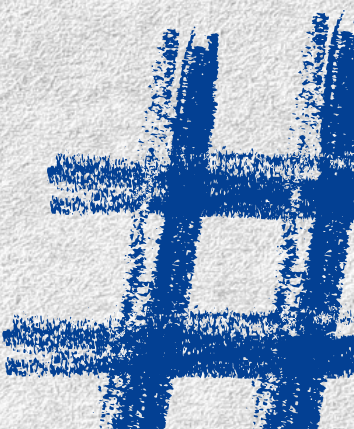
B. S1 DAN R2

b) jarak S_1 dan R_2

.....



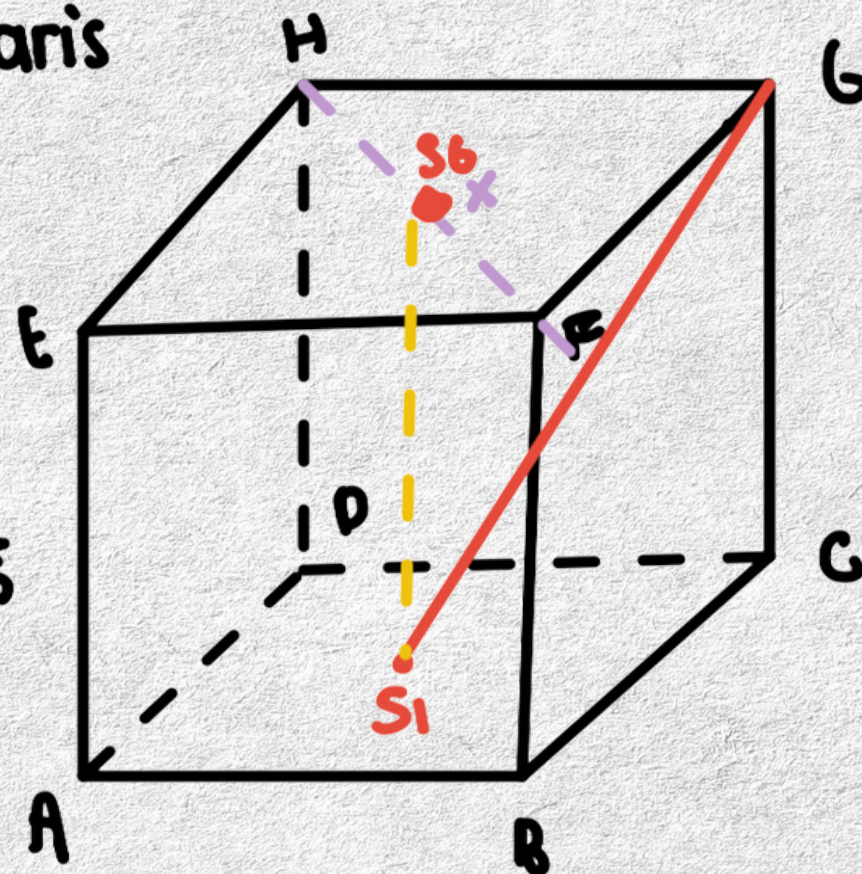
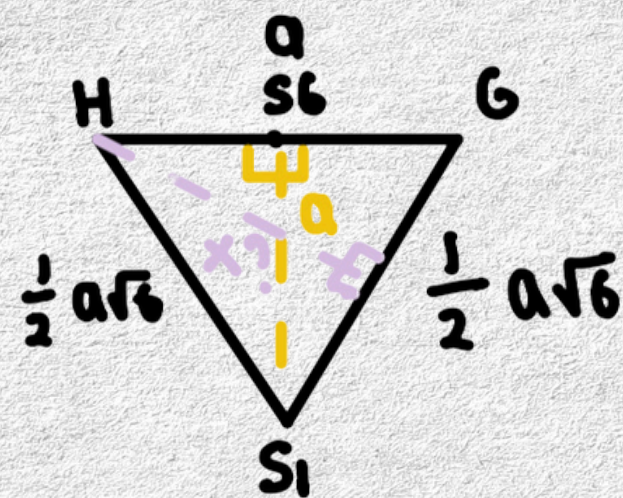
$$\begin{aligned} x &= \sqrt{a^2 + \left(\frac{1}{2}a\right)^2} \\ &= \sqrt{a^2 + \frac{1}{4}a^2} \\ &= \sqrt{\frac{5}{4}} a \\ &= \frac{\sqrt{5}}{2} a \end{aligned}$$



C. H KE GS1

c) jarak titik ke garis

H ke GS₁



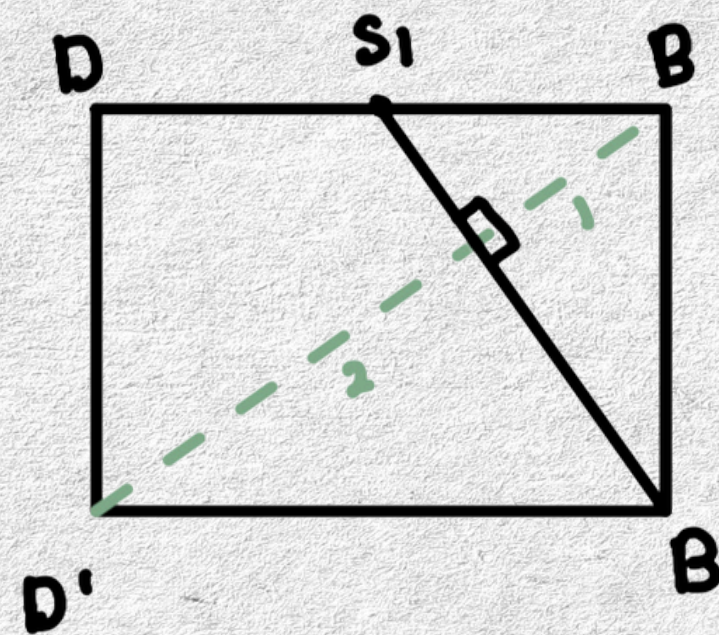
$$\frac{1}{2} \cdot \frac{1}{2} a\sqrt{6} \cdot x = \frac{1}{2} \cdot a \cdot a$$

$$x = \frac{2a}{\sqrt{6}} \cdot \frac{\sqrt{6}}{\sqrt{6}}$$

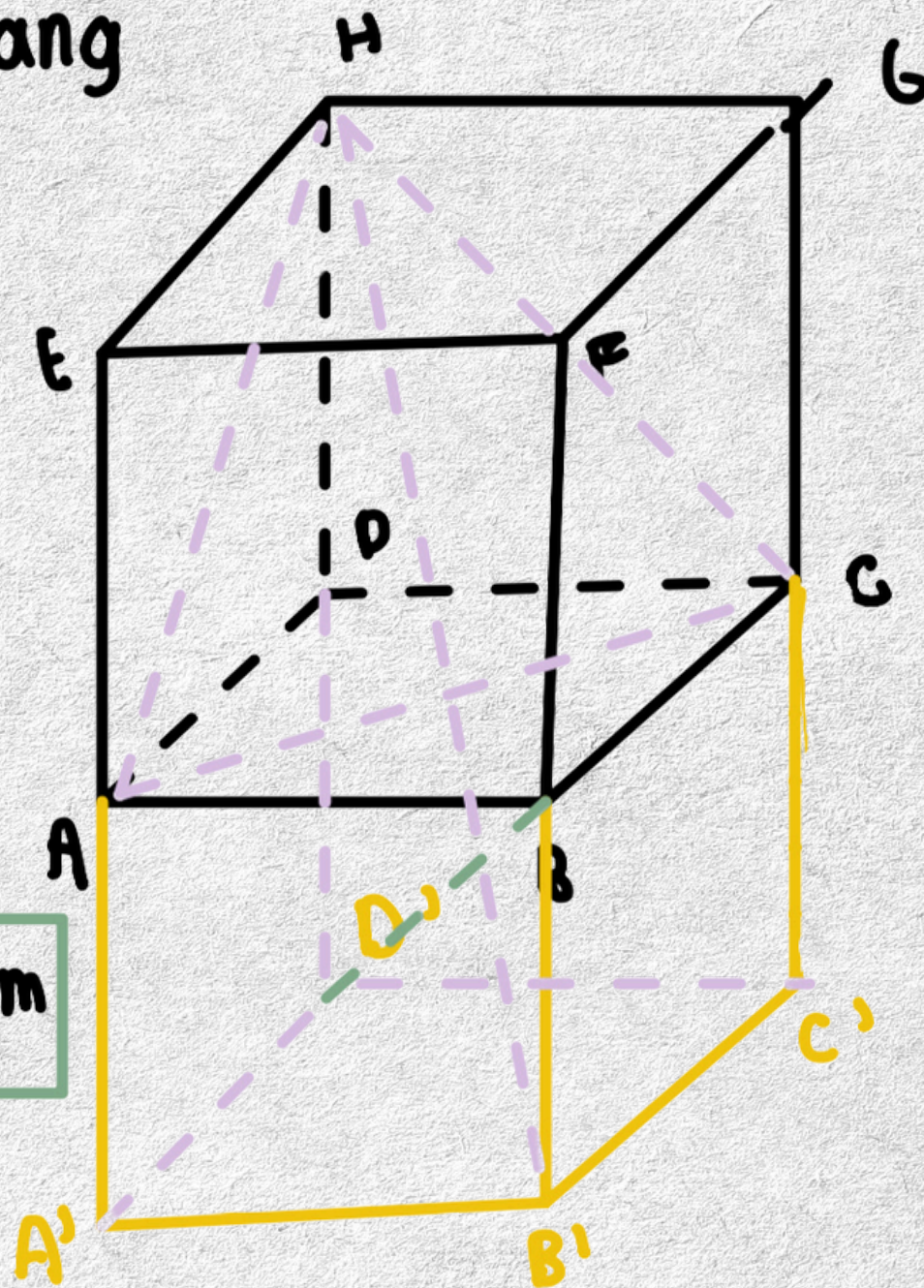
$$x = \frac{1}{3} a\sqrt{6} \text{ cm}$$

D. B KE ACH

d) jarak titik ke bidang
B ke ACH

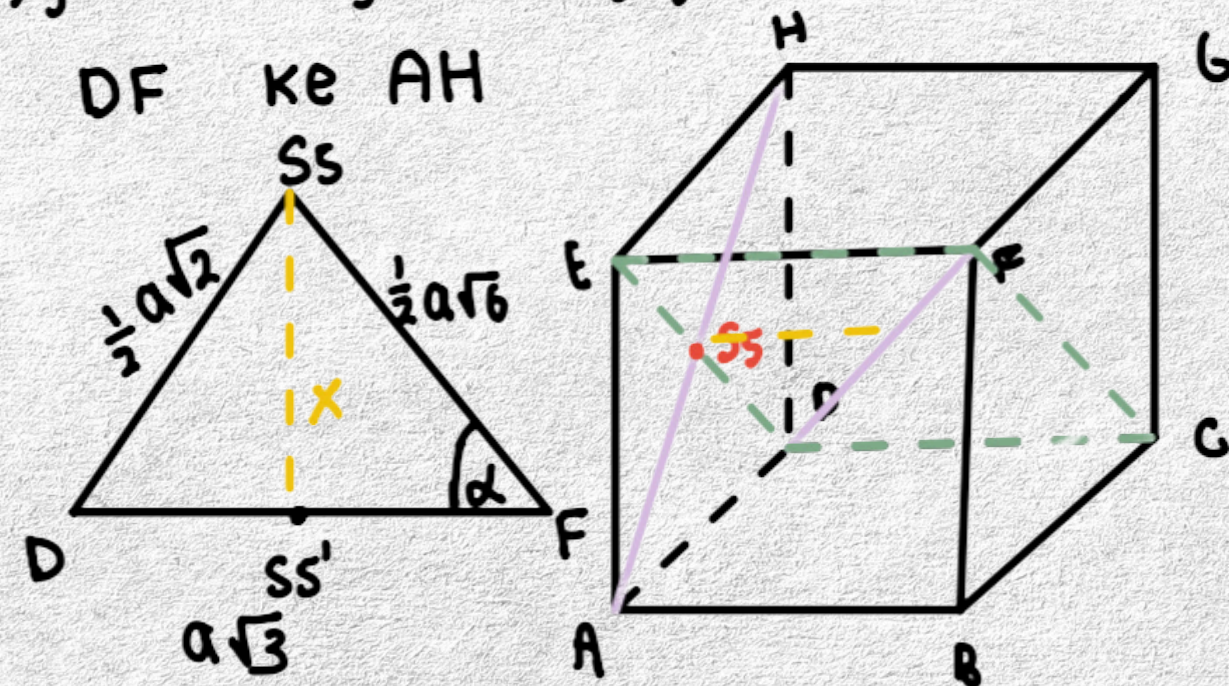


$$\frac{1}{3} BD' = \frac{1}{3} a\sqrt{3} \text{ cm}$$



E. DF KE AH

e) jarak 2 garis sejajar

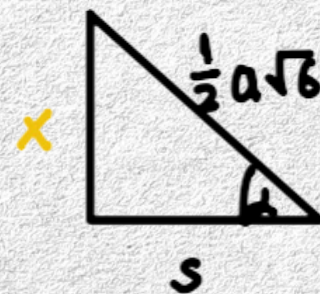


$$\left(\frac{1}{2} a\sqrt{2}\right)^2 = \left(\frac{1}{2} a\sqrt{6}\right)^2 + (a\sqrt{3})^2 - 2 \cdot \frac{1}{2} a\sqrt{6} \cdot a\sqrt{3} \cdot \cos \alpha$$

$$\frac{1}{2} a^2 = \frac{3}{2} a^2 + 3a^2 - a^2\sqrt{18} \cdot \cos \alpha$$

$$\sqrt{18} \cos \alpha = 4$$

$$\cos \alpha = \frac{4}{\sqrt{18}}$$



$$\begin{aligned} \frac{4}{\sqrt{18}} &= \frac{s}{\frac{1}{2} a\sqrt{6}} \\ s &= \frac{2a\sqrt{6}}{\sqrt{18}} \\ &= \frac{2}{3} a\sqrt{3} \end{aligned}$$

$$\frac{1}{2} a\sqrt{6} = \sqrt{x^2 + \left(\frac{2}{3} a\sqrt{3}\right)^2} \quad (\dots)^2$$

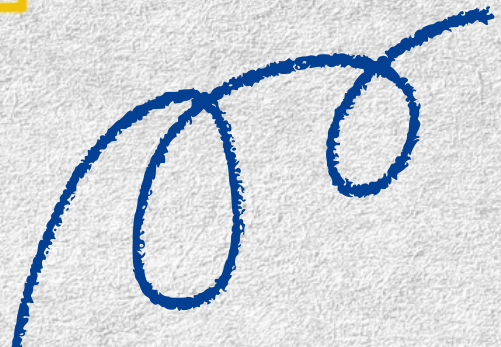
$$\frac{3}{2} a^2 = x^2 + \frac{4}{3} a^2$$

$$x^2 = \frac{18a^2 - 16a^2}{12}$$

$$x^2 = \frac{2a^2}{12}$$

$$x^2 = \frac{1}{6} a^2$$

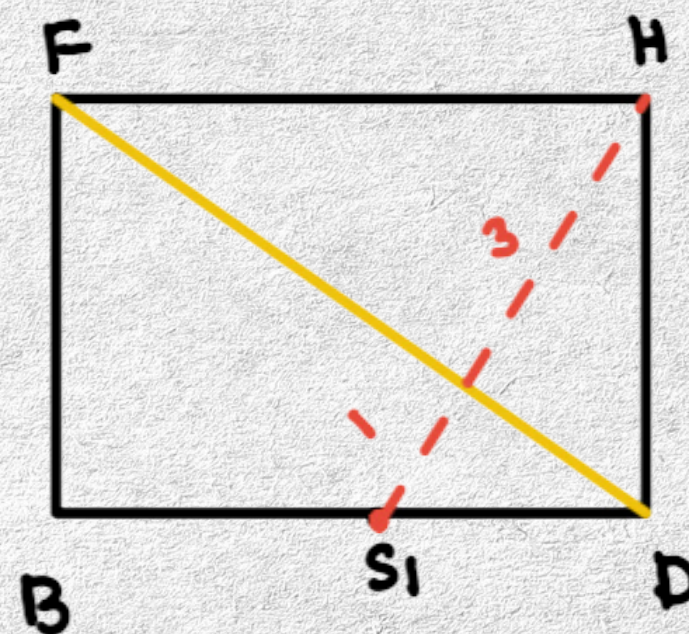
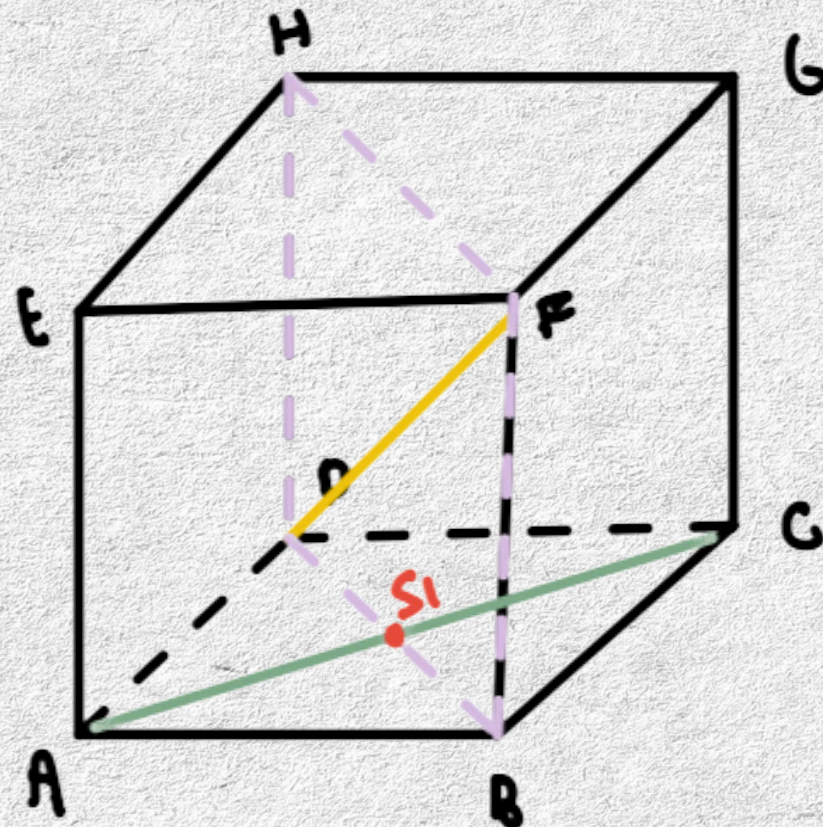
$$x = \frac{1}{6} a\sqrt{6} \text{ cm}$$



F. AC DAN DF

f) jarak 2 garis berpotongan

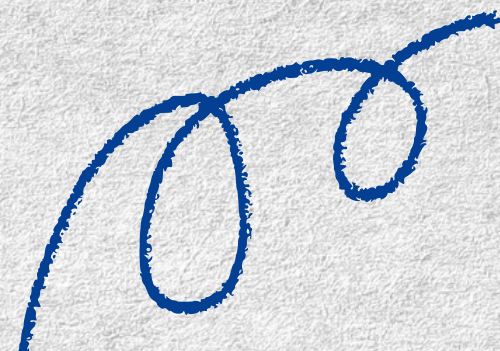
AC dan DF



$$x = \frac{1}{3} HS_1$$

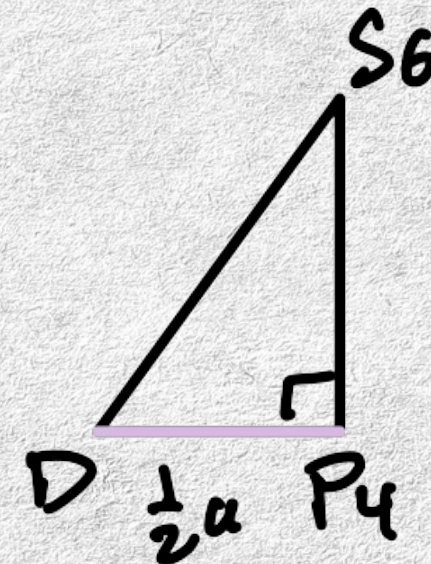
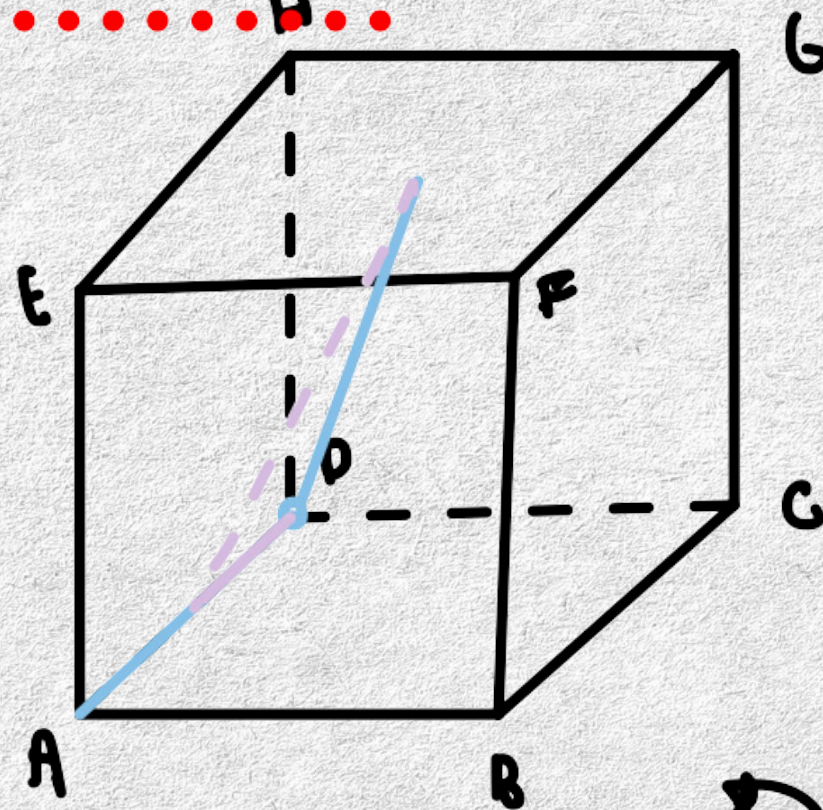
$$= \frac{1}{3} \cdot \frac{1}{2} a\sqrt{6}$$

$$x = \frac{1}{6} a\sqrt{6} \text{ cm}$$

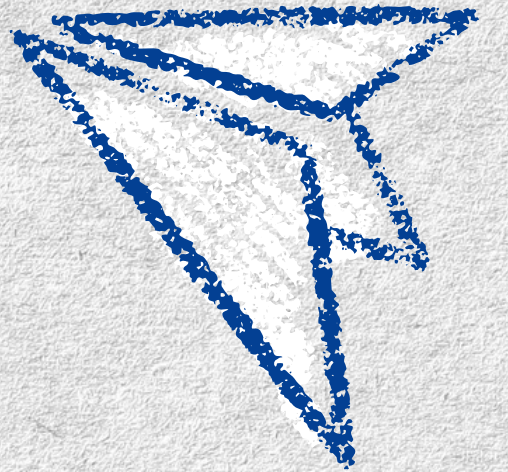


G. DS6 PADA AD

g) Proyeksi DS6 pada AD

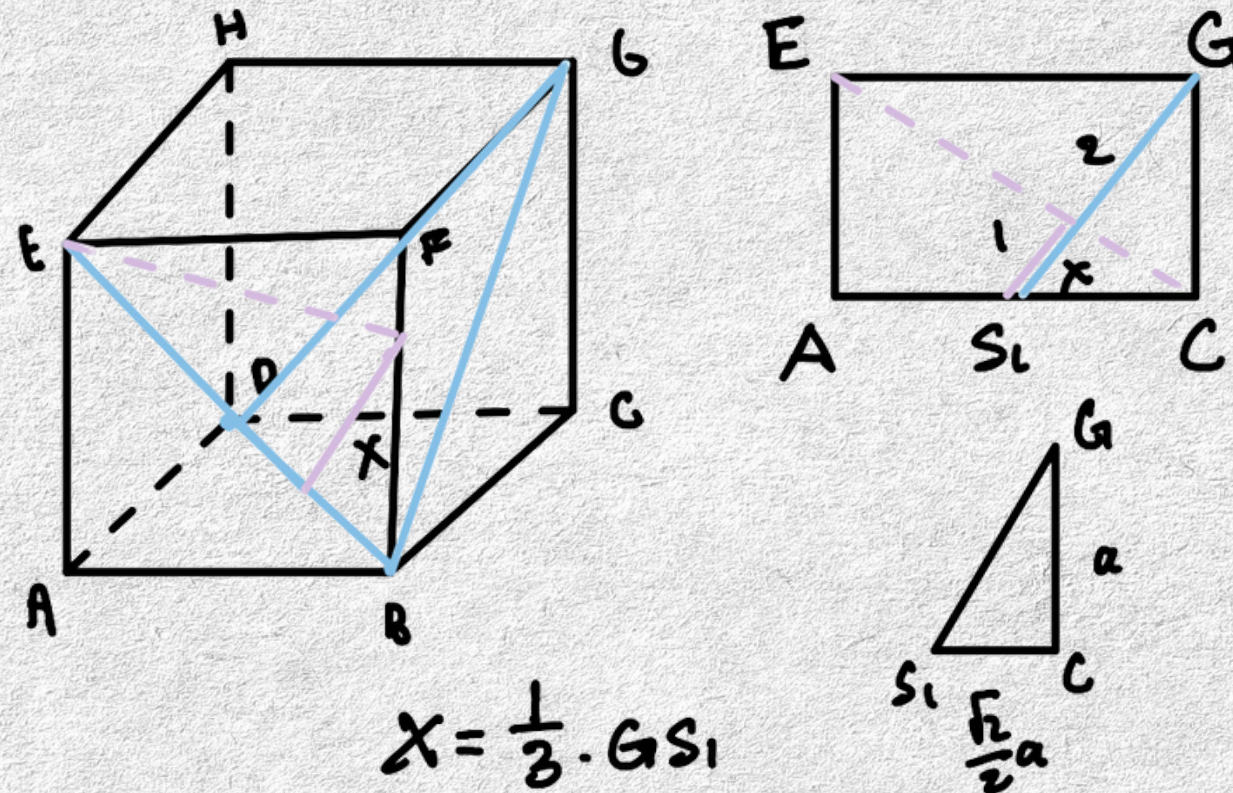


$$DP_4 = \frac{1}{2}a$$

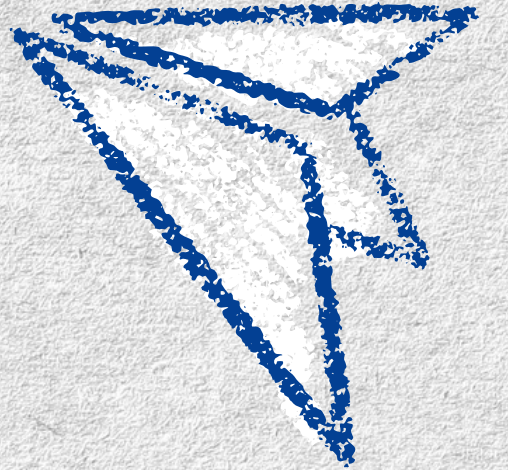


H. EB TERHADAP BDG

h) Proyeksi EB terhadap BDG



$$\begin{aligned}
 x &= \frac{1}{3} \cdot GS_1 \\
 &= \frac{1}{3} \sqrt{a^2 + \left(\frac{\sqrt{2}}{2}a\right)^2} \\
 &= \frac{1}{3} \sqrt{\frac{3}{2}} a \\
 &= \frac{\sqrt{6}}{6} a
 \end{aligned}$$



THANK YOU !!

