



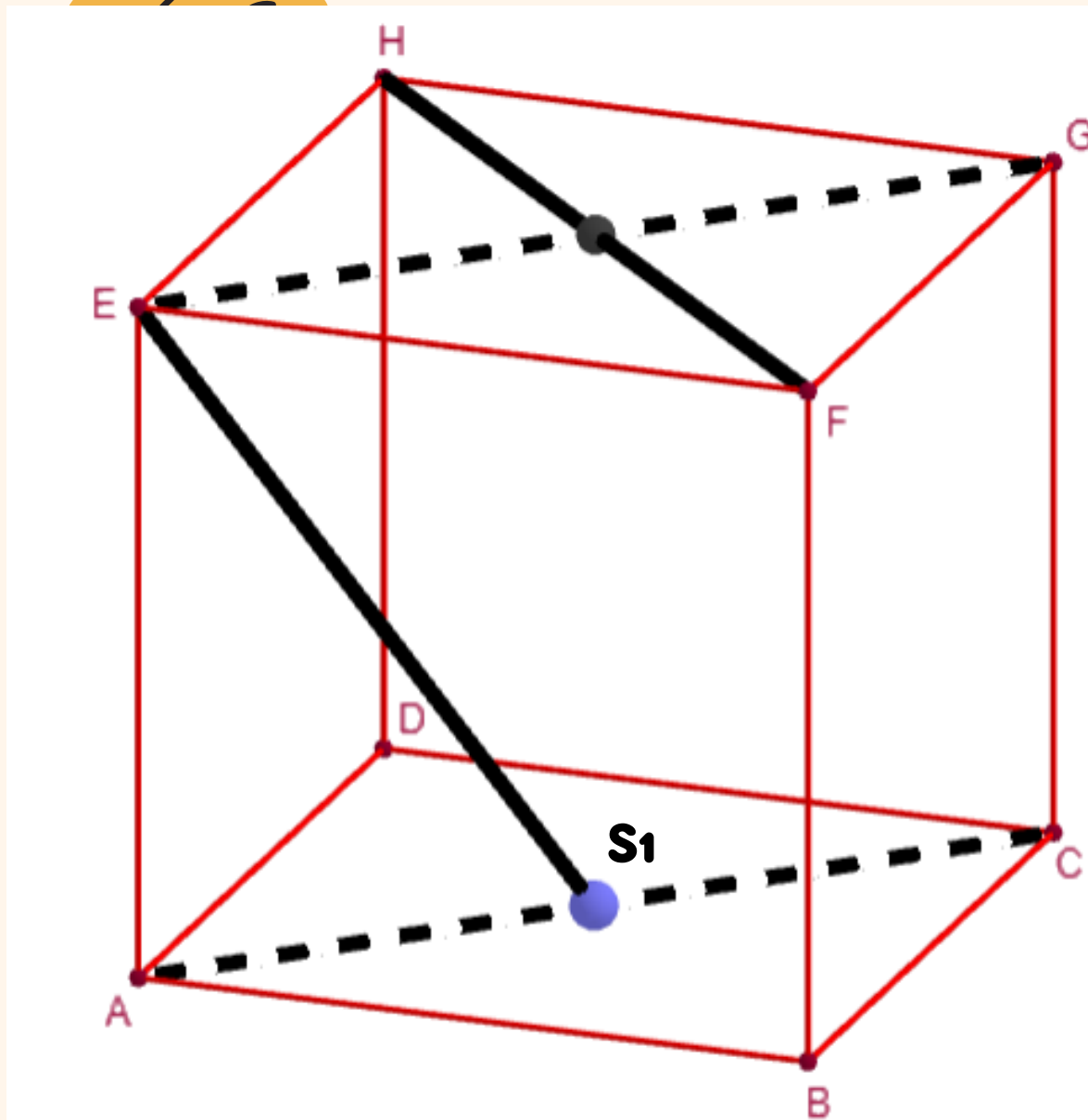
Dimensi 3

Anggota Kelompok

- **Benedict Alden/ XII MIPA 4 / 04**
- **Darwin Winoto/ XII MIPA 4 / 10**
- **Indira Gracia/ XII MIPA 4 / 16**
- **Keiko Adeline/ XII MIPA 4 / 24**



Ketegaklurusan Dua Garis



Buktikan bahwa $HF \perp ES_1$

$$HF \perp EG$$

$$HF \perp EA$$

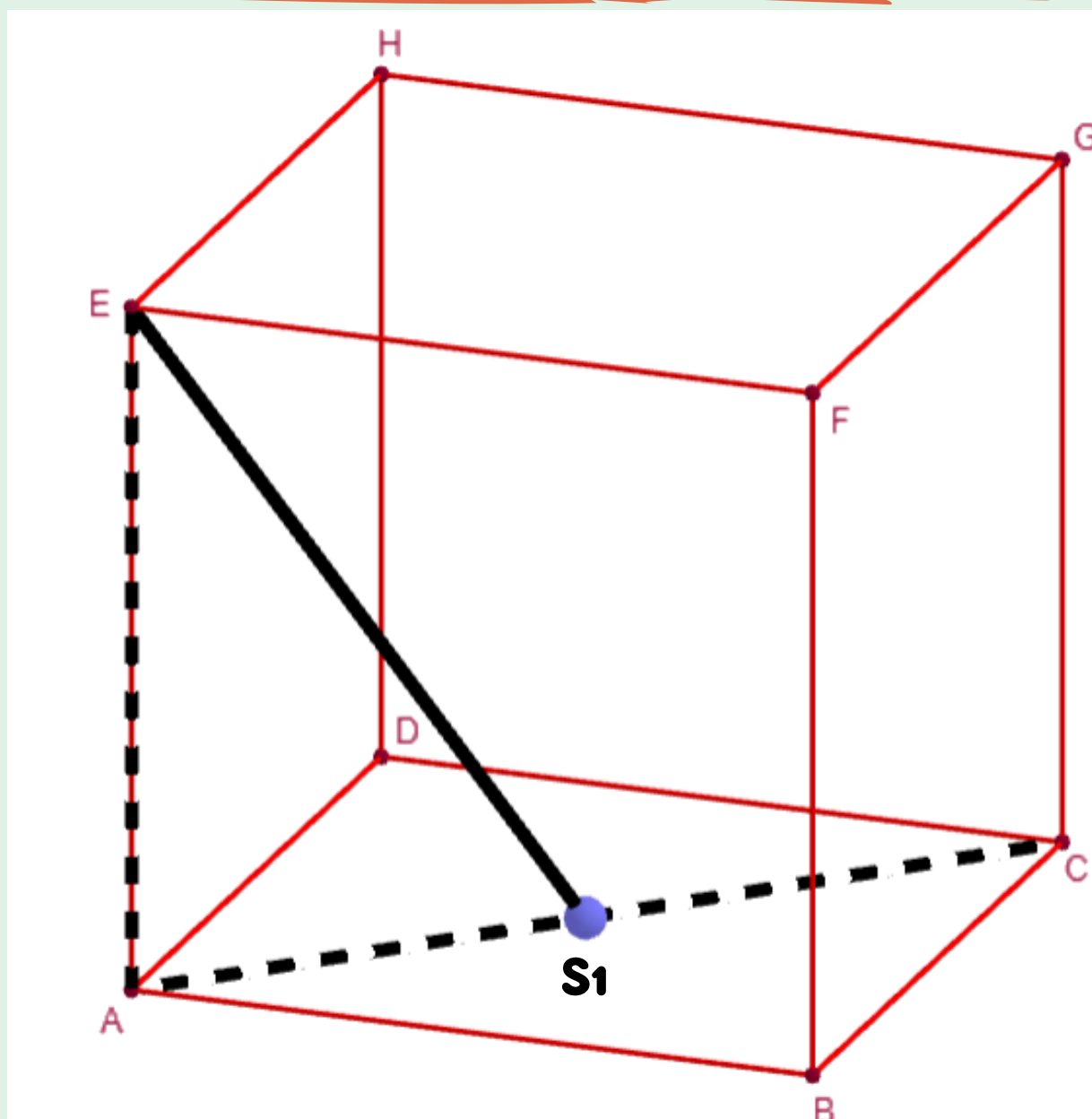
EG dan EA ada pada bangun

ACGE maka,

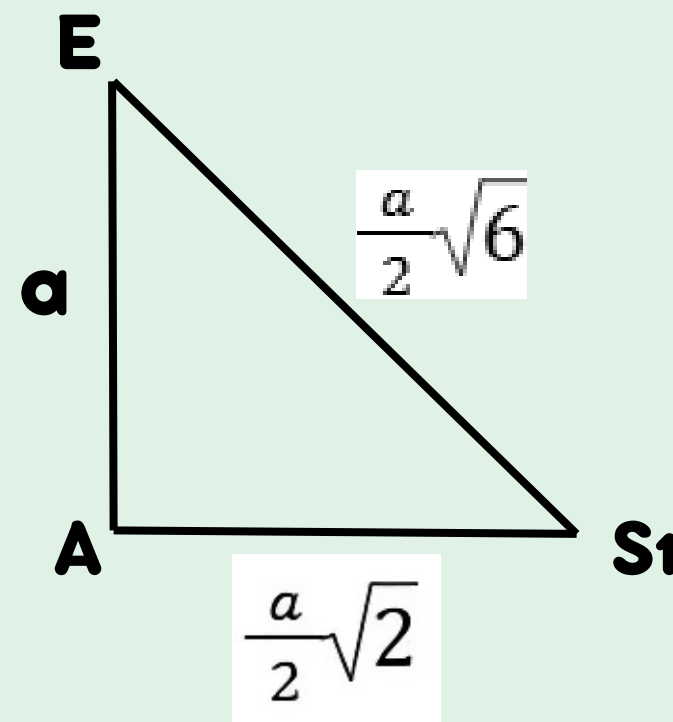
$$HF \perp \text{ACGE}$$

$$HF \perp ES_1$$

Jarak Titik ke Titik



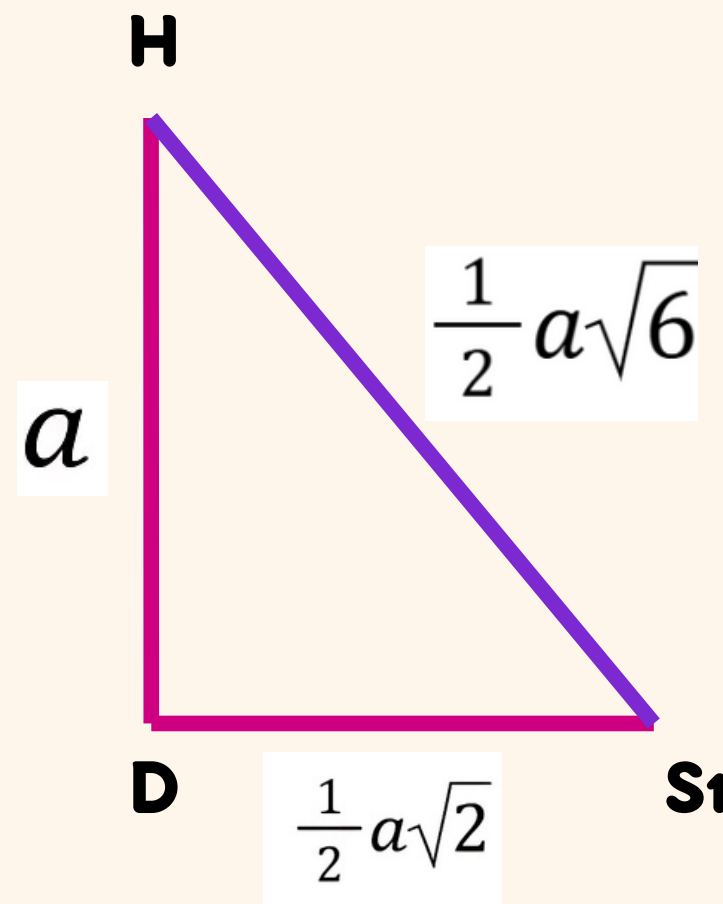
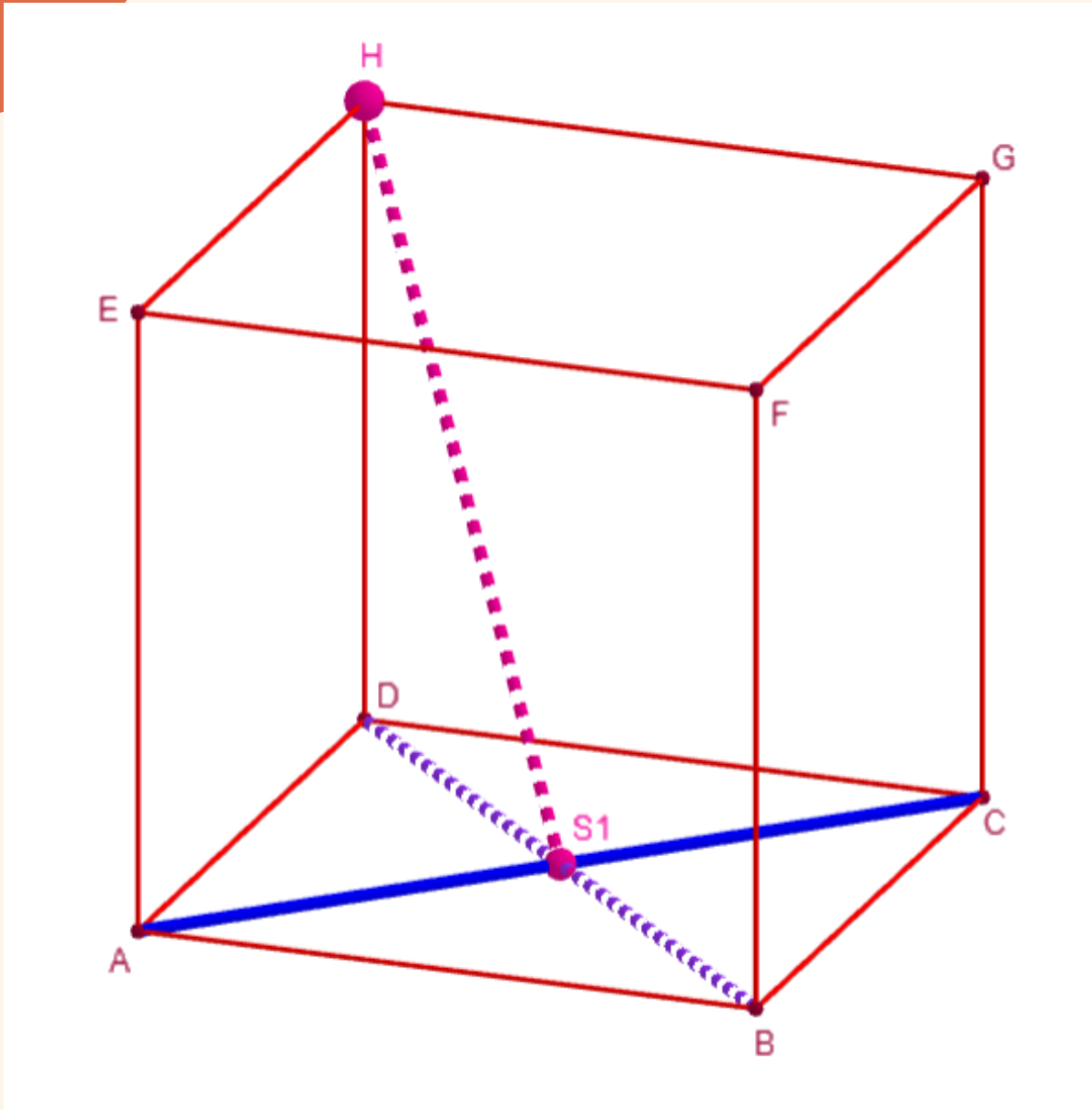
Tentukan jarak E ke S1



$$\begin{aligned} X &= \sqrt{a^2 + \left(\frac{a}{2}\sqrt{2}\right)^2} \\ &= \sqrt{\frac{4a^2 + 2a^2}{4}} \\ &= \frac{a}{2}\sqrt{6} \text{ cm} \end{aligned}$$

Jarak titik ke garis

Tentukan jarak H ke AC



$$HS1 = \sqrt{a^2 + \left(\frac{1}{2}a\sqrt{2}\right)^2}$$

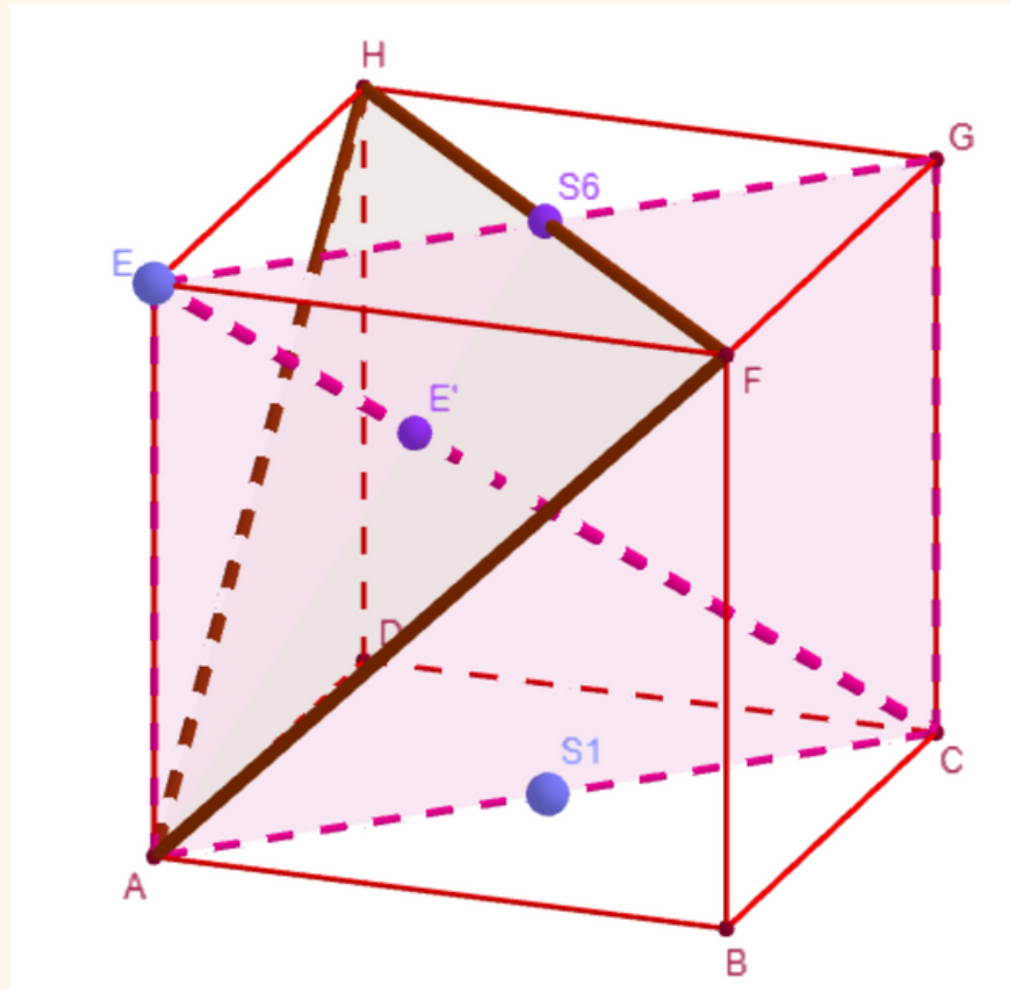
$$HS1 = \sqrt{a^2 + \frac{1}{4}a^2 2}$$

$$HS1 = \sqrt{\frac{4a^2 + 2a^2}{4}}$$

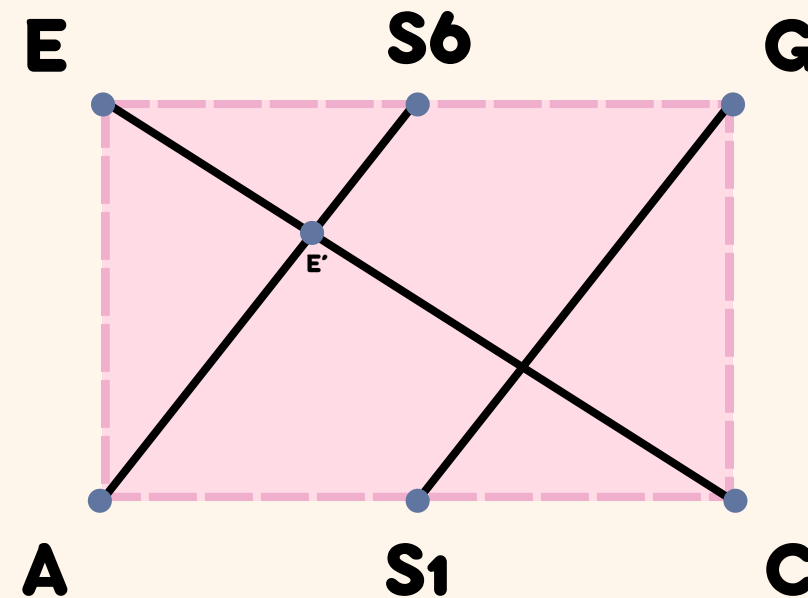
$$HS1 = \frac{1}{2}a\sqrt{6}$$



Jarak titik ke bidang



Tentukan jarak E ke AFH

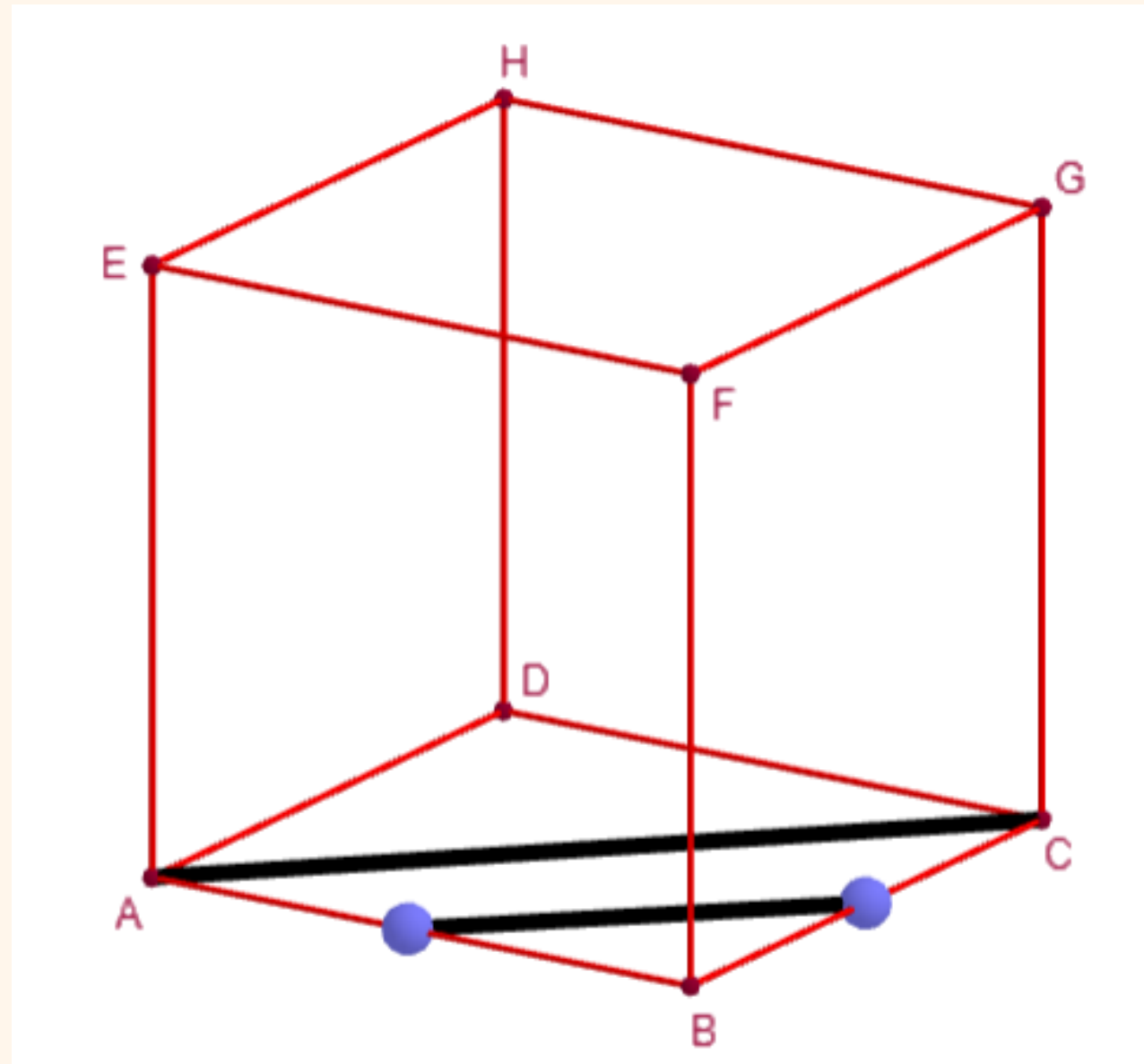


$$EE' = \frac{1}{3} \text{diagonal ruang}$$

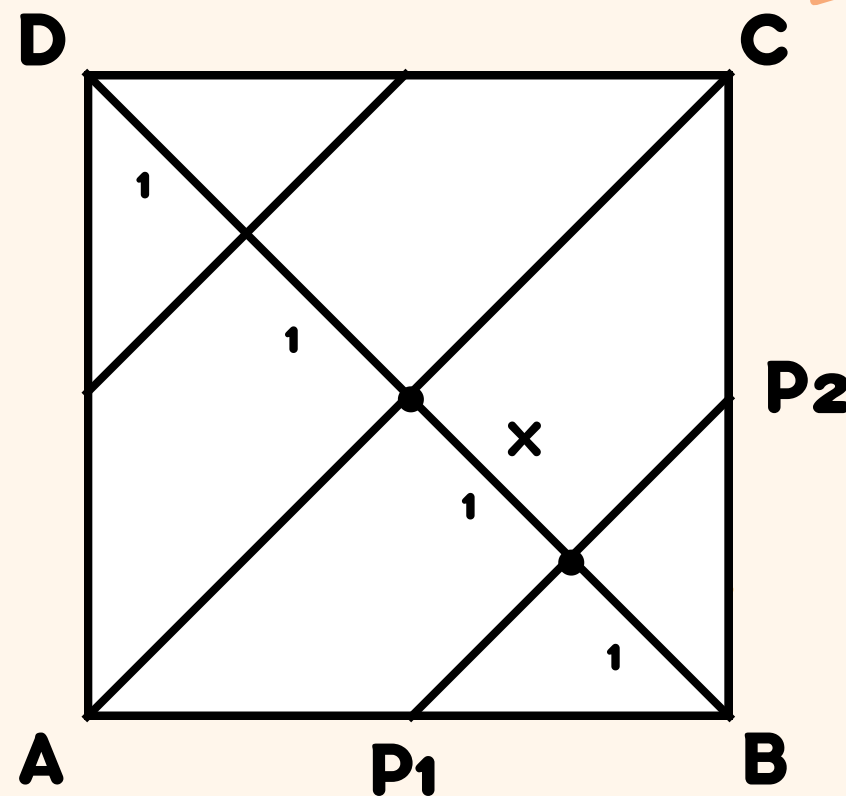
$$EE' = \frac{1}{3} a\sqrt{3}$$



Jarak 2 garis sejajar

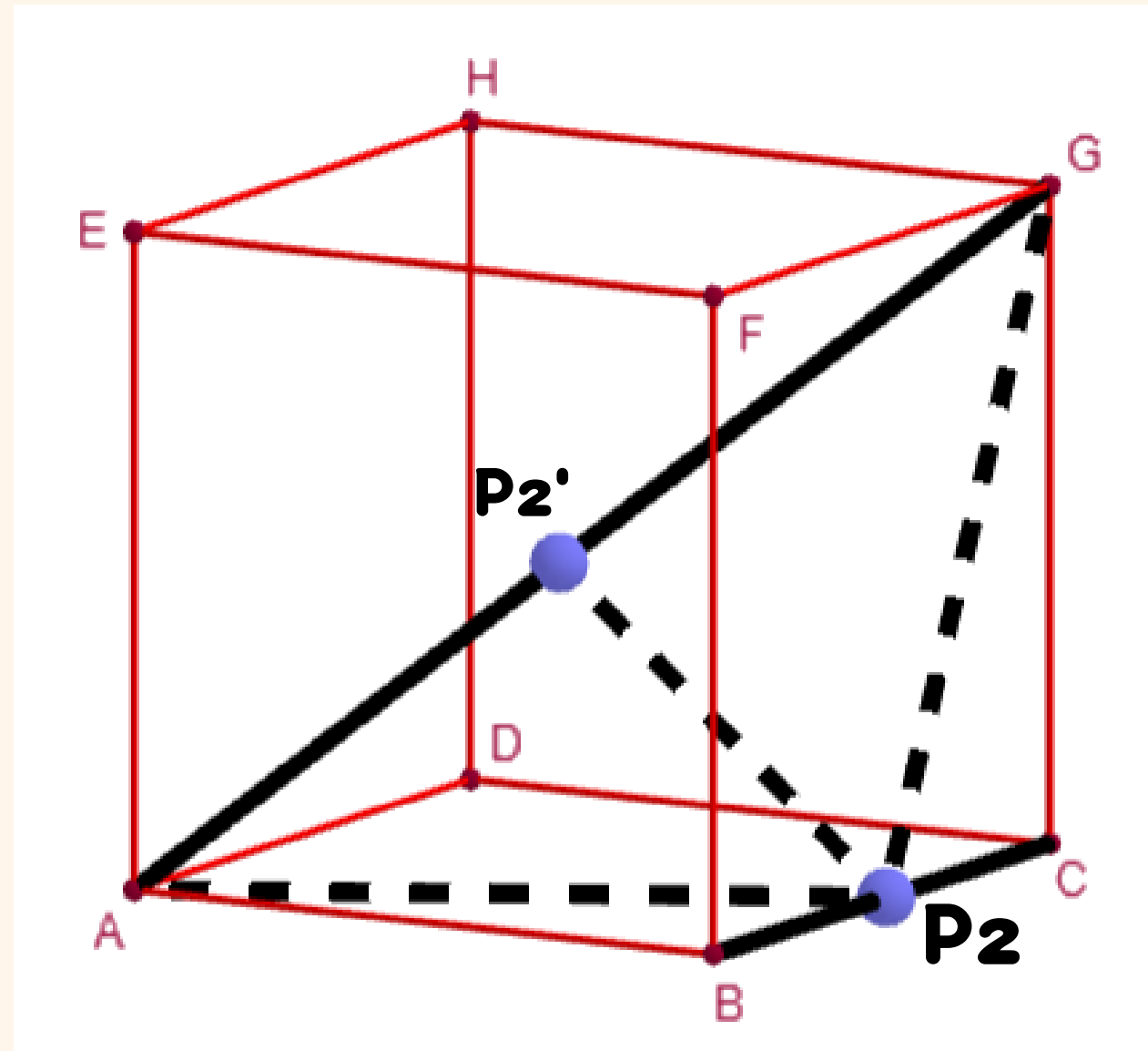


Tentukan jarak AC ke P_1P_2

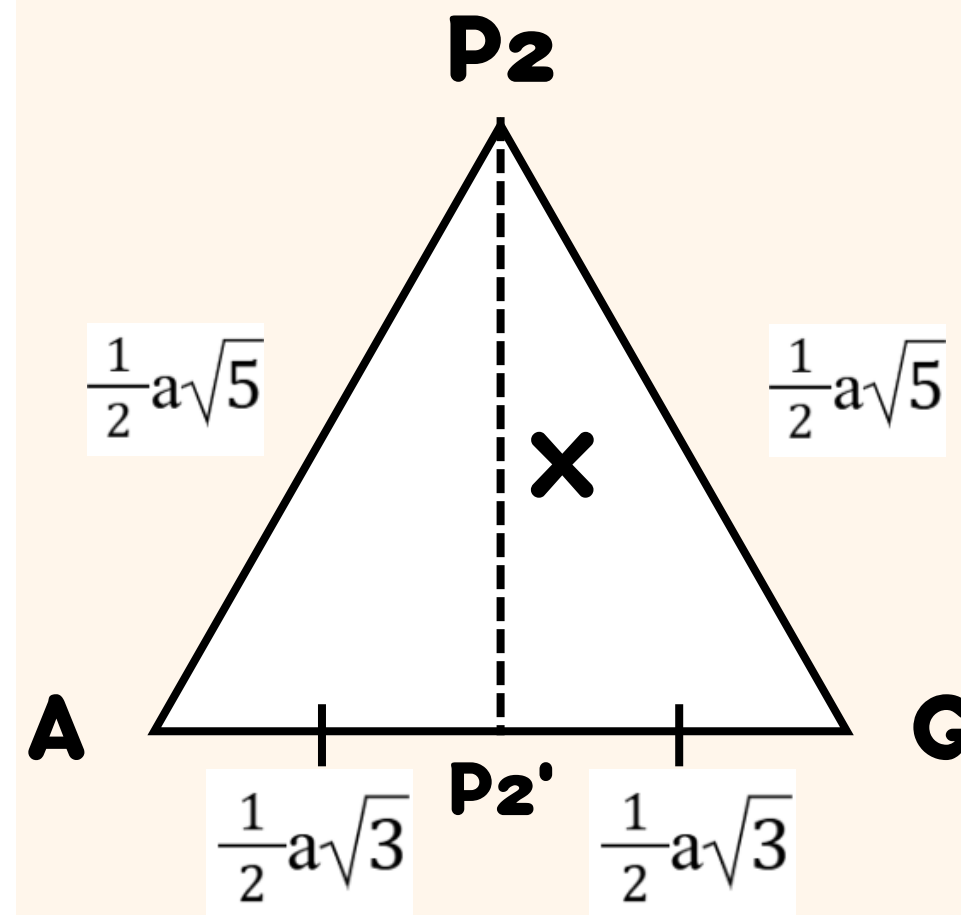


$$\begin{aligned} X &= \frac{1}{4} BD \\ &= \frac{1}{4} a\sqrt{2} \text{ cm} \end{aligned}$$

Jarak 2 garis bersilangan

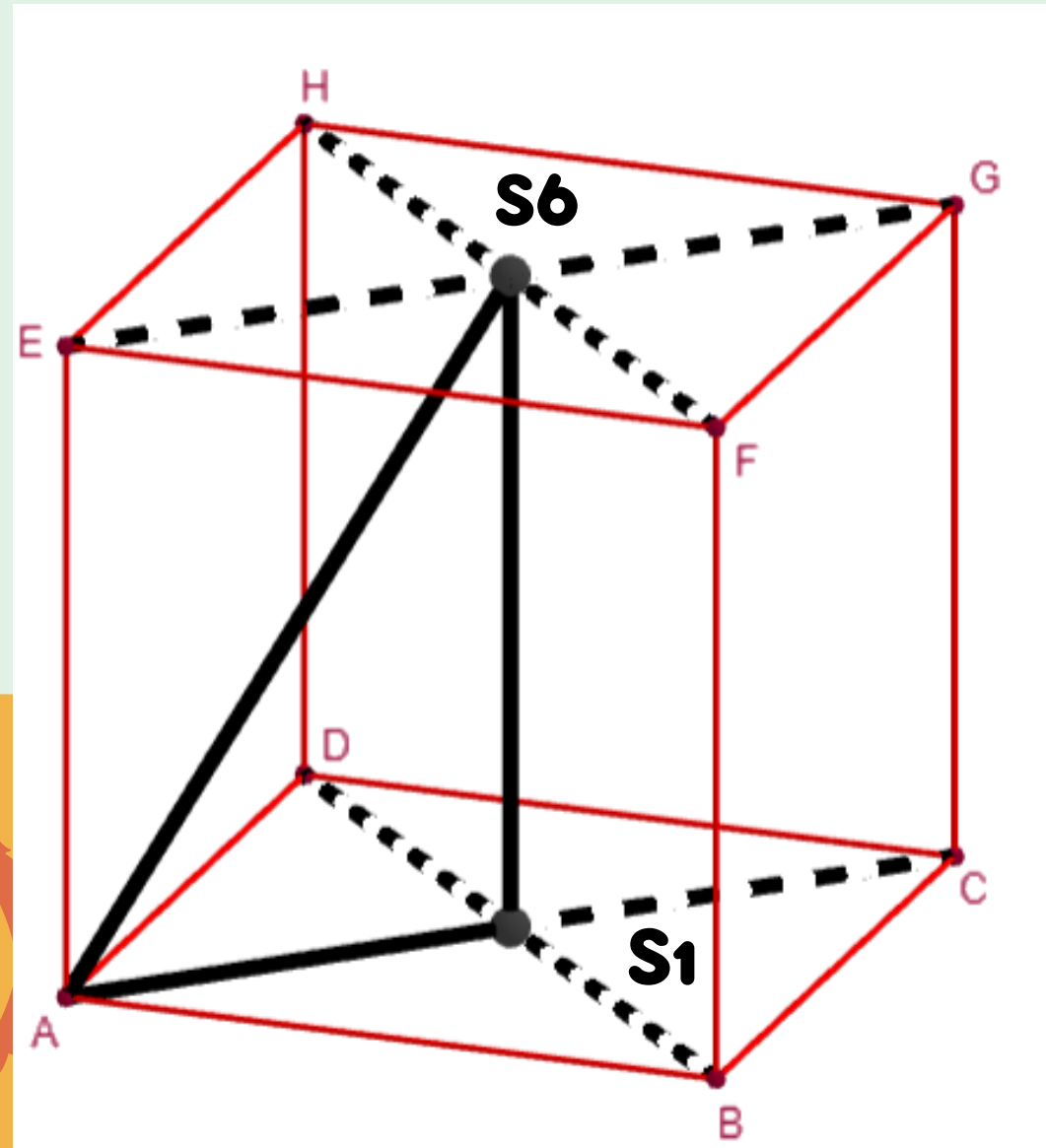


Tentukan jarak AG ke BC

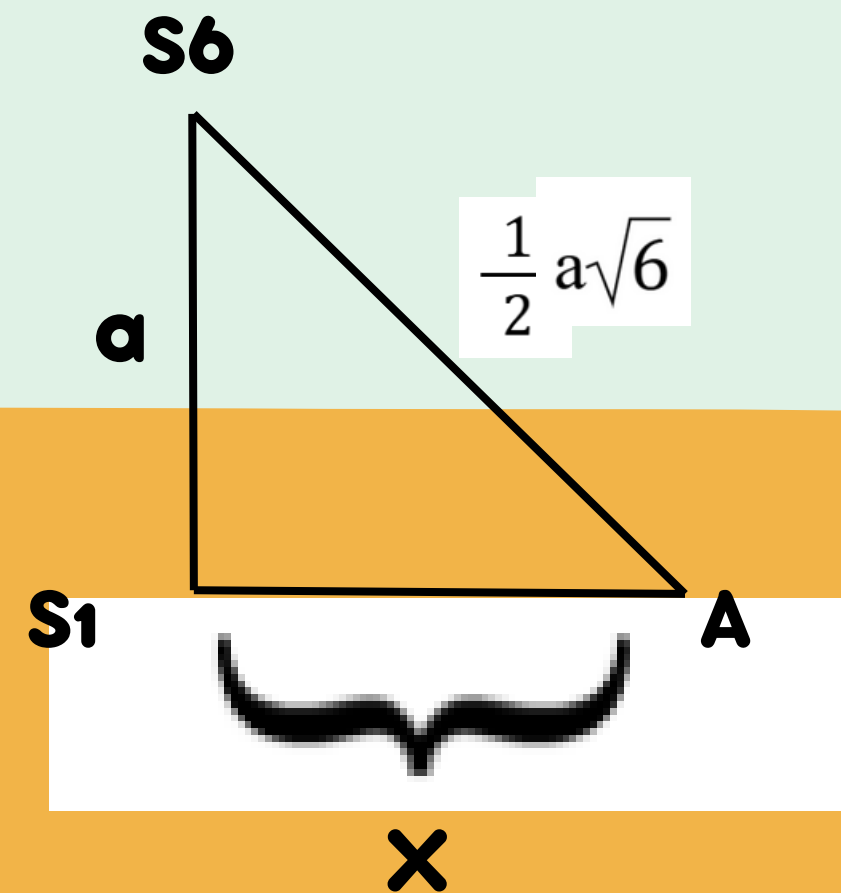


$$\begin{aligned} x &= \sqrt{\left(\frac{1}{2}a\sqrt{5}\right)^2 - \left(\frac{1}{2}a\sqrt{3}\right)^2} \\ &= \sqrt{\frac{5}{4} - \frac{3}{4}} \\ &= \frac{1}{2}a\sqrt{2} \text{ cm} \end{aligned}$$

Proyeksi garis ke garis



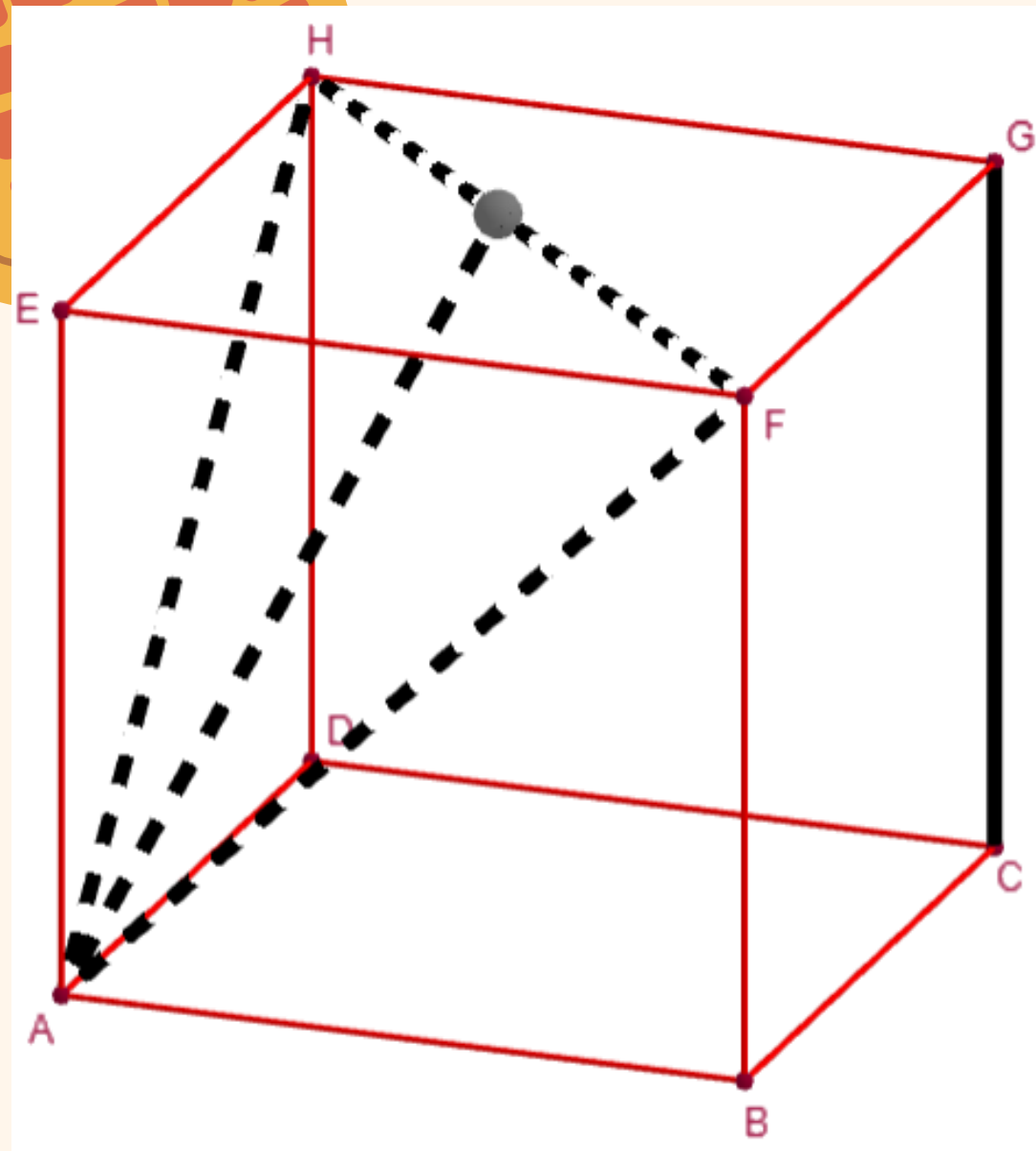
Hitung panjang proyeksi AS6 pada AC



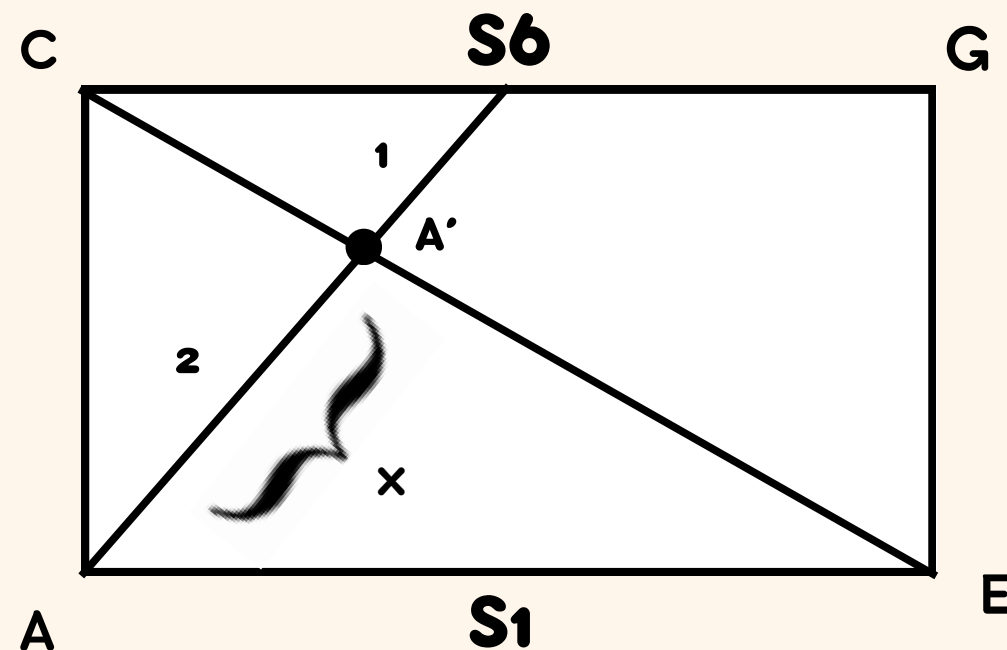
$$\begin{aligned} x &= \sqrt{\left(\frac{1}{2}a\sqrt{6}\right)^2 - (a)^2} \\ &= \frac{1}{2}a\sqrt{2} \text{ cm} \end{aligned}$$



Proyeksi garis ke bidang



Hitung panjang proyeksi CG pada AFH



$$\begin{aligned} X &= \frac{2}{3} AS_6 \\ &= \frac{2}{3} \times \frac{1}{2} a\sqrt{6} \\ &= \frac{1}{3} a\sqrt{6} \text{ cm} \end{aligned}$$

