

Dimensi Tiga

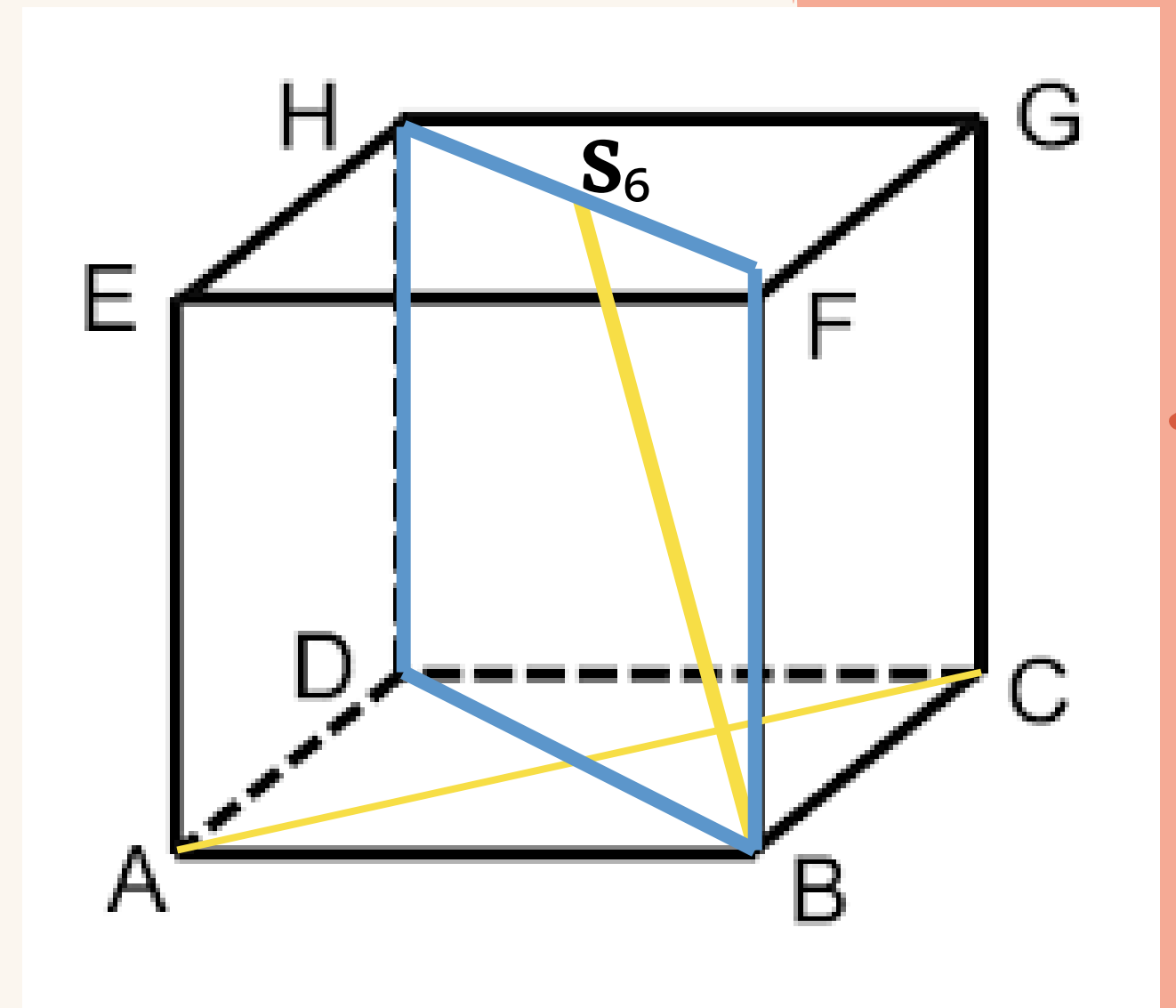
XII MIPA 3

Grace (13), Josiah (19),
Nichelle (27)



Buktikan BS_6 tegak lurus dengan AC !

$$\left. \begin{array}{l} AC \perp BD \\ AC \perp BF \end{array} \right\} AC \perp BDHF$$
$$AC \perp BS_6$$



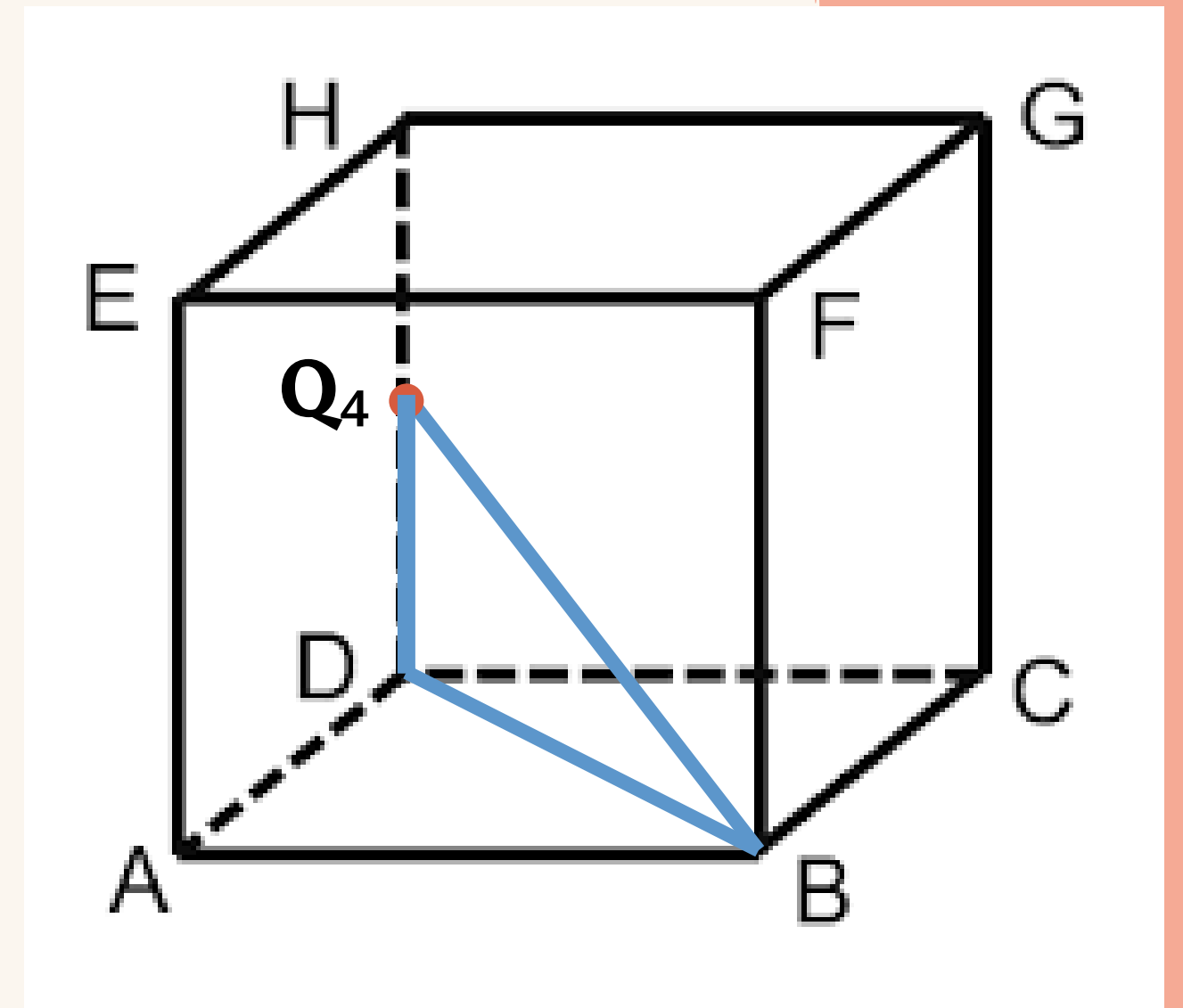
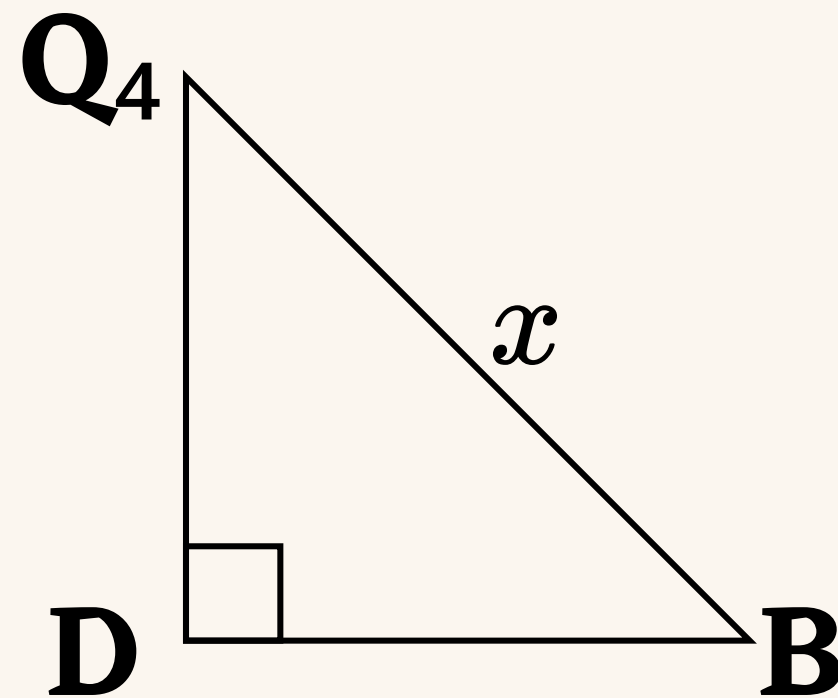


Hitung jarak Q_4 ke B!

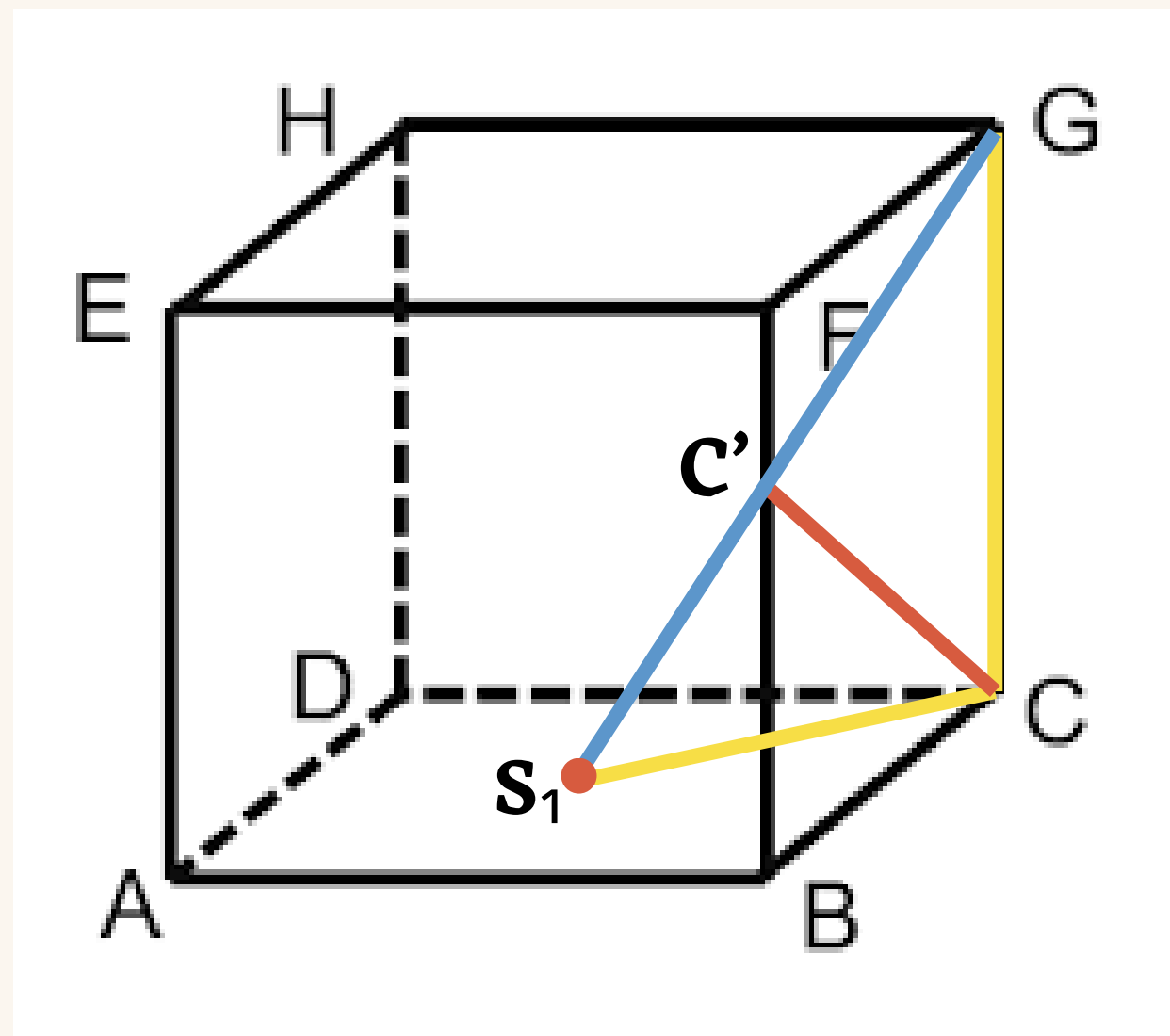
$$x = \sqrt{\left(a\sqrt{2}\right)^2 + \left(\frac{1}{2}a\right)^2}$$

$$x = \sqrt{\frac{9}{4}a^2}$$

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



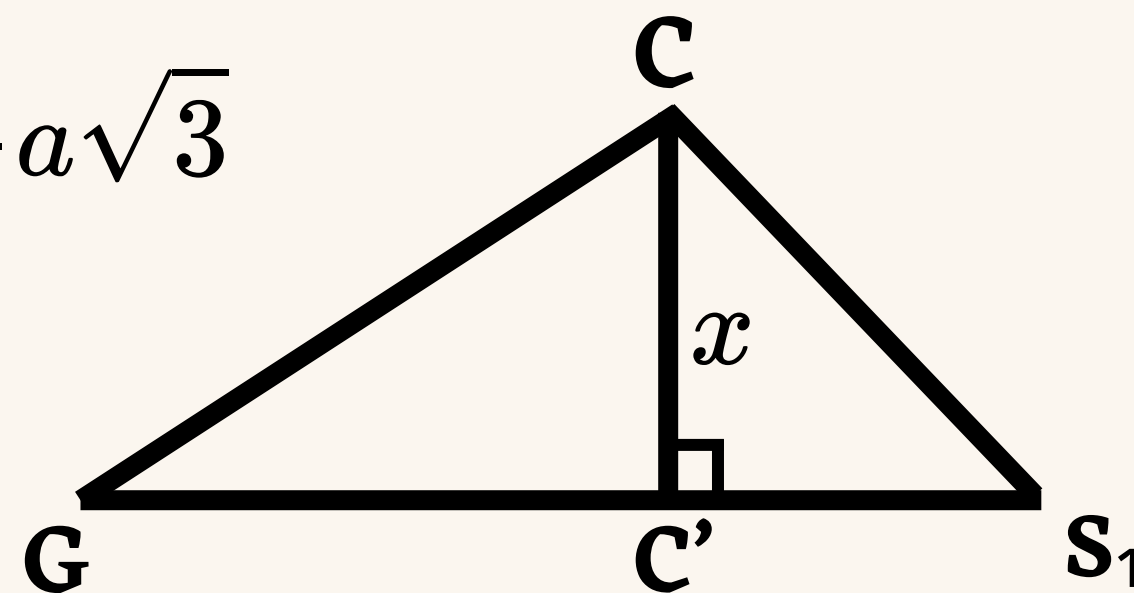
* Hitung jarak C ke GS_1 !



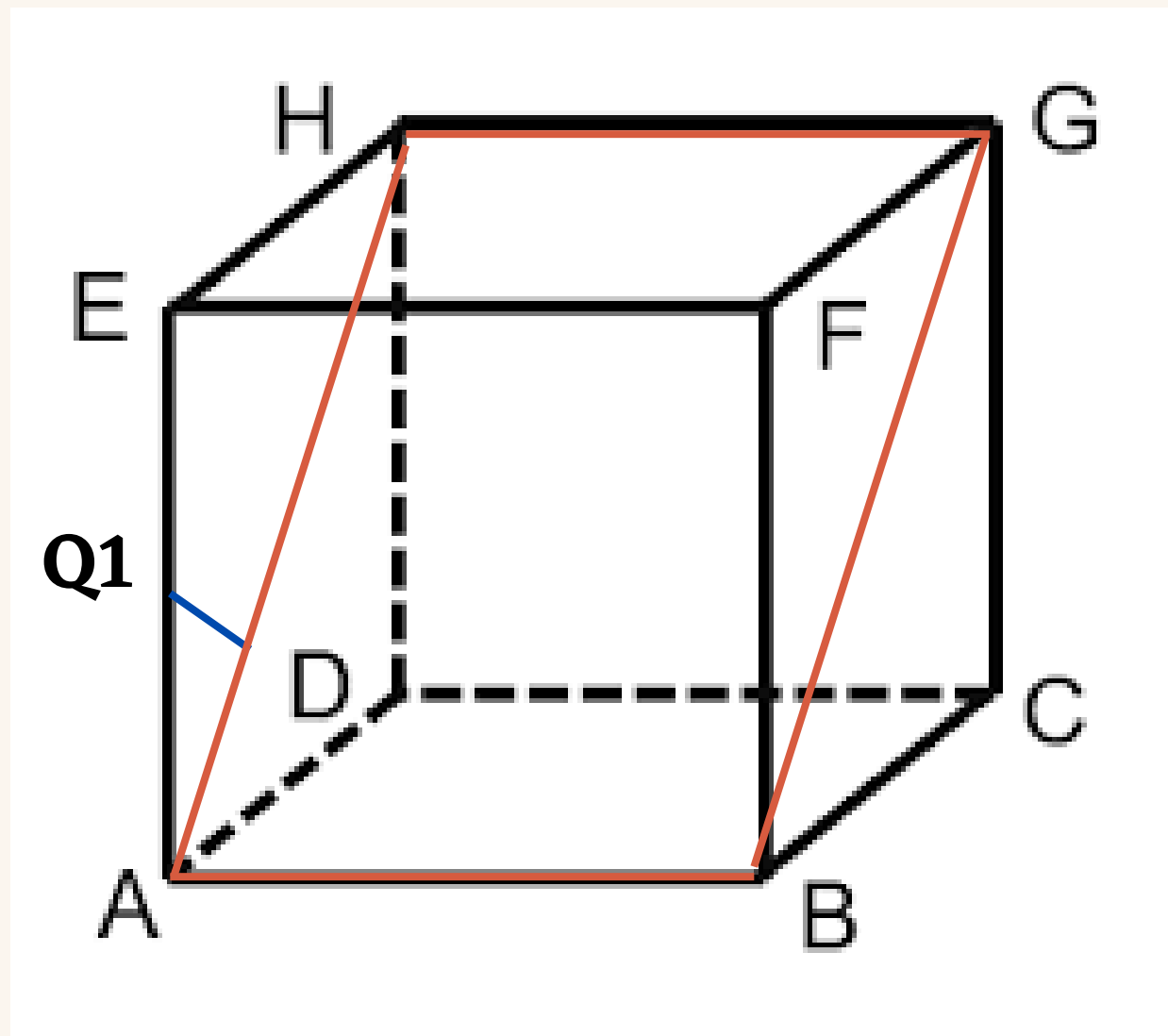
$$\frac{1}{2} \times GS_1 \times CC' = \frac{1}{2} \times GC \times S_1C$$

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

$$x = \frac{1}{3}a\sqrt{3}$$



Hitung jarak Q_1 ke ABGH!

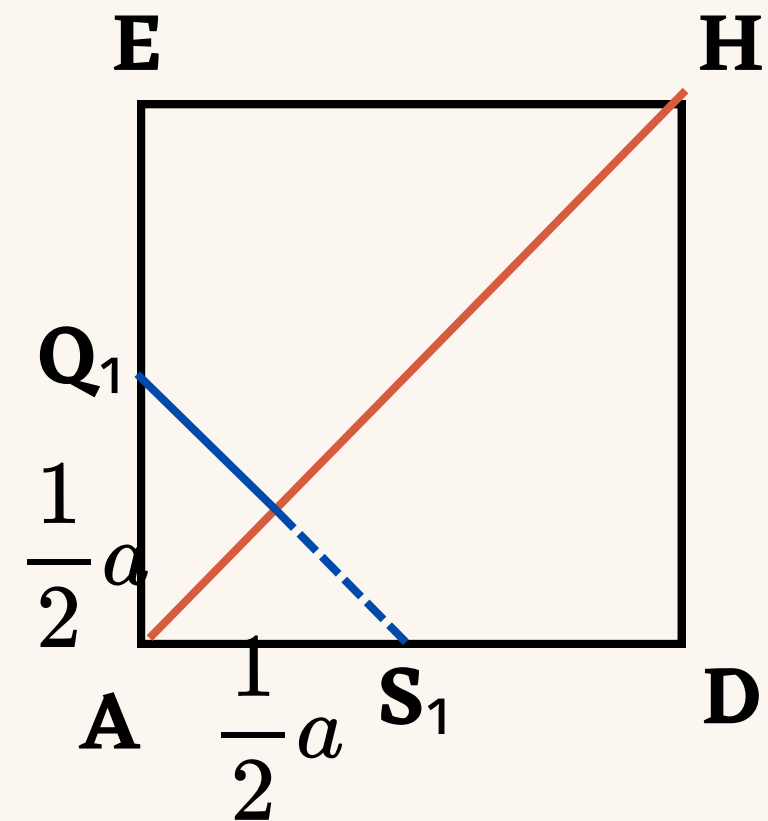


$$Q_1 Q'_1 = \frac{AQ_1 \times AS_1}{\sqrt{AS_1^2 + AS_1^2}}$$

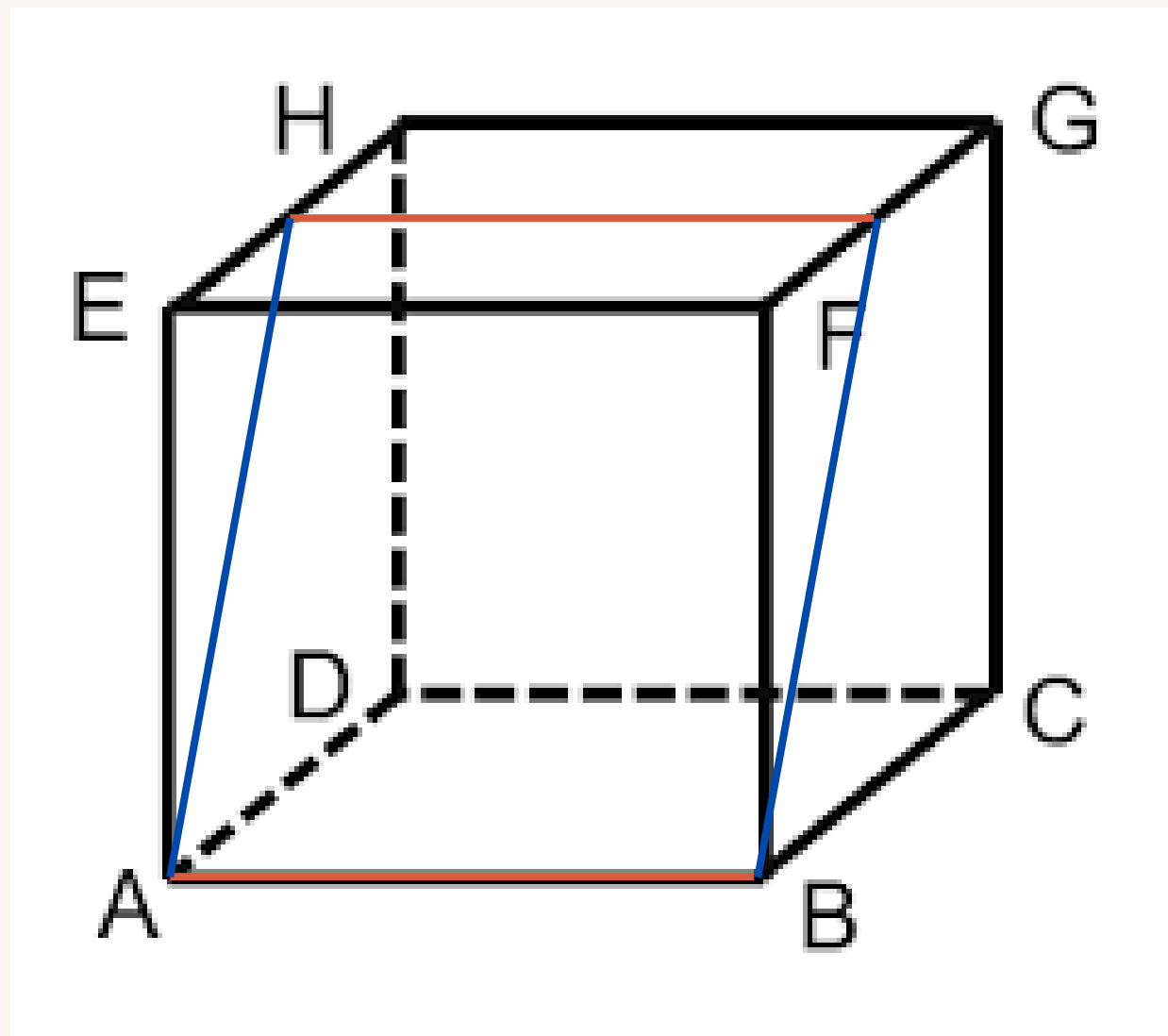
$$Q_1 Q'_1 = \frac{\frac{1}{2}a \times \frac{1}{2}a}{\sqrt{\left(\frac{1}{2}a\right)^2 + \left(\frac{1}{2}a\right)^2}}$$

$$Q_1 Q'_1 = \frac{\frac{1}{4}a^2}{\frac{1}{2}a\sqrt{2}}$$

$$Q_1 Q'_1 = \frac{1}{4}a\sqrt{2}$$



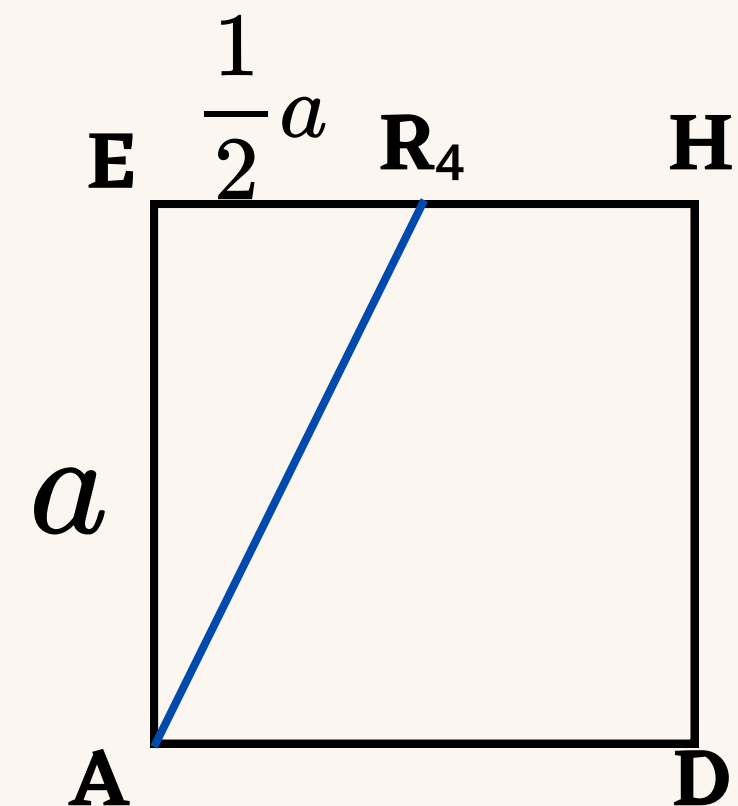
Hitung jarak AB ke R₂R₄!



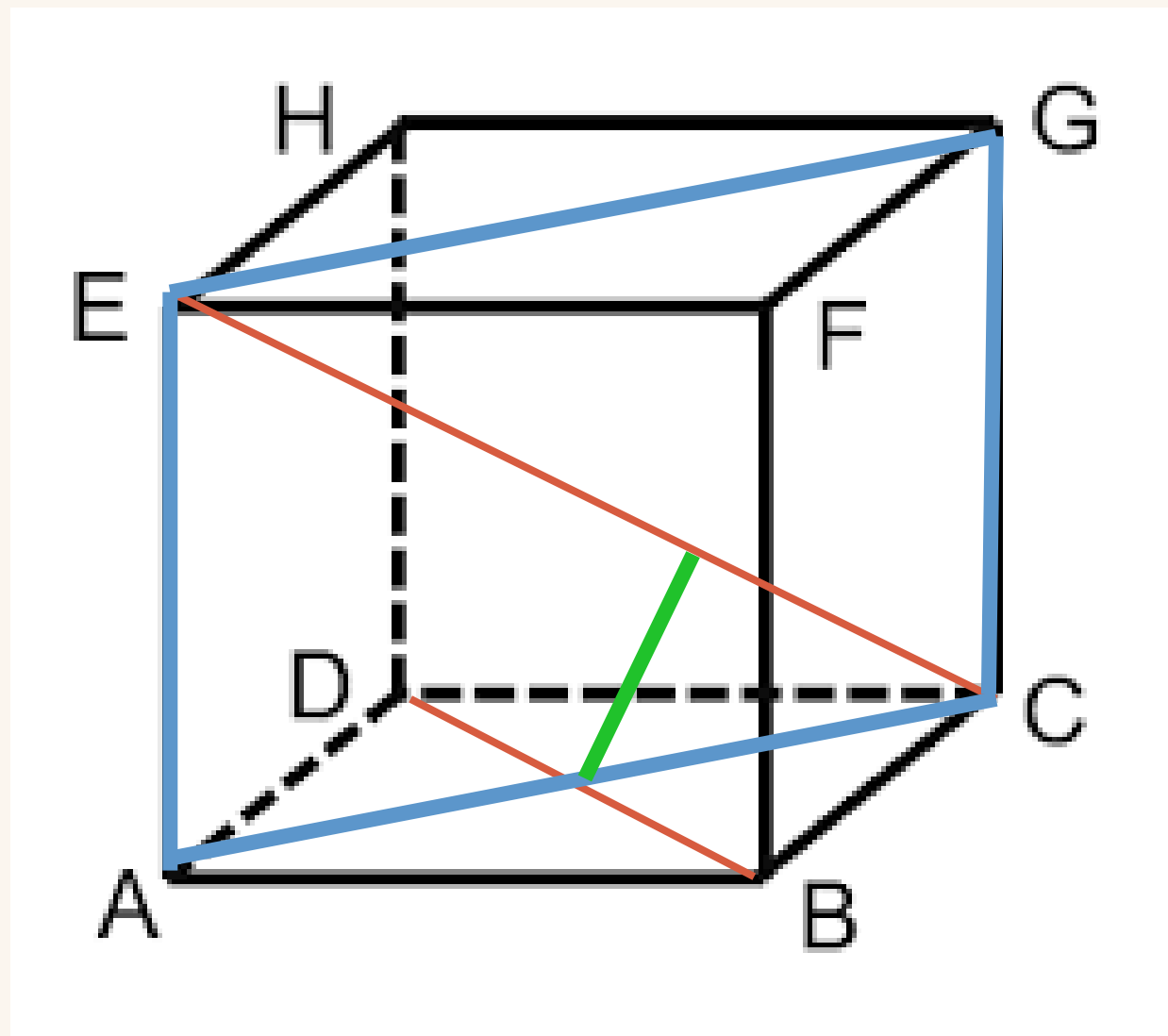
$$x = \sqrt{(a)^2 + \left(\frac{1}{2}a\right)^2}$$

$$x = \sqrt{\frac{5}{4}a^2}$$

$$x = \frac{1}{4}a\sqrt{5}$$



Hitung jarak BD ke CE!

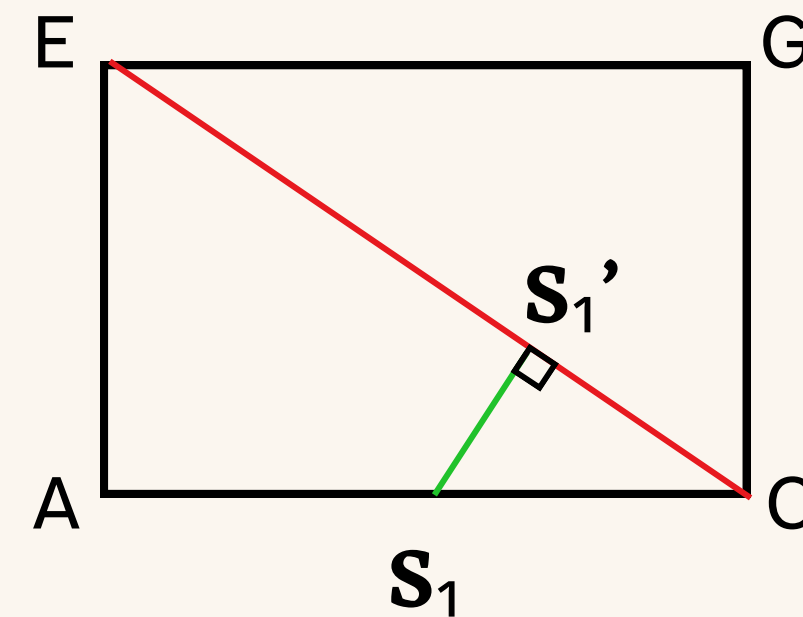


$$\sin \alpha = \frac{AE}{EC} = \frac{S_1 S'_1}{S_1 C}$$

$$\frac{a}{a\sqrt{3}} = \frac{S_1 S'_1}{\frac{1}{2}a\sqrt{2}}$$

$$\frac{1}{3}\sqrt{3} = \frac{S_1 S'_1}{\frac{1}{2}a\sqrt{2}}$$

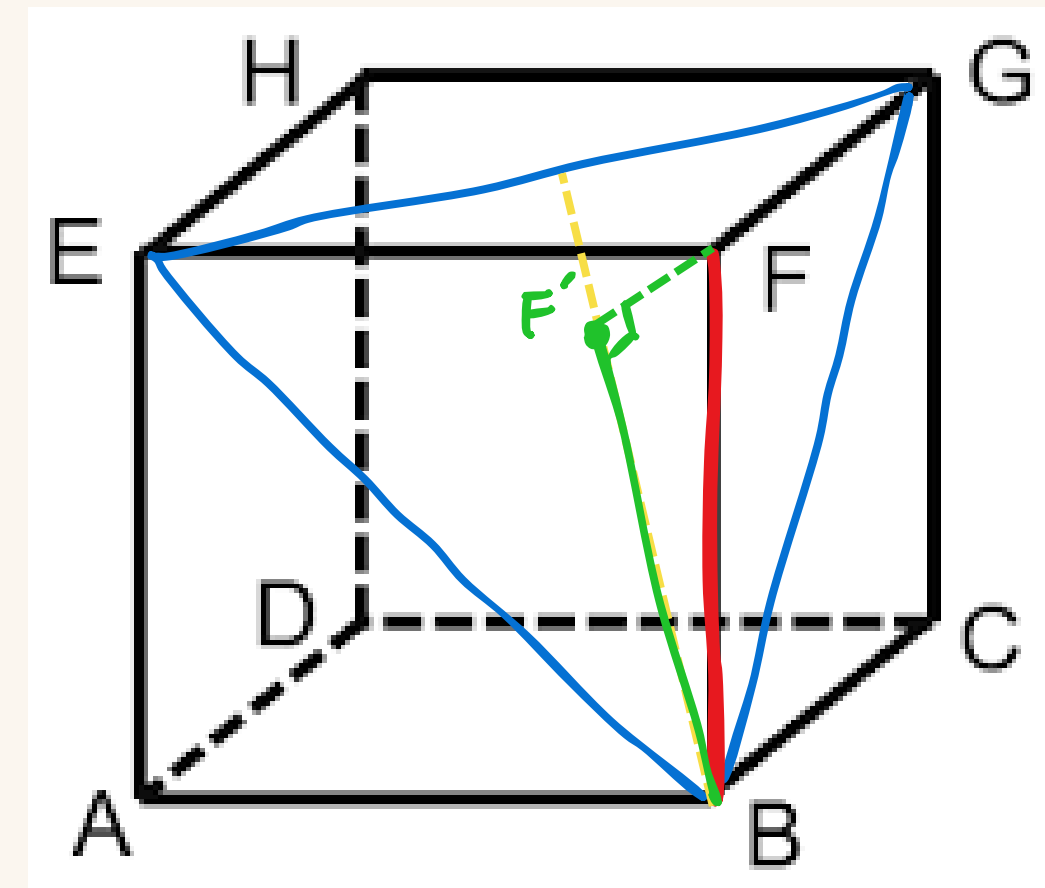
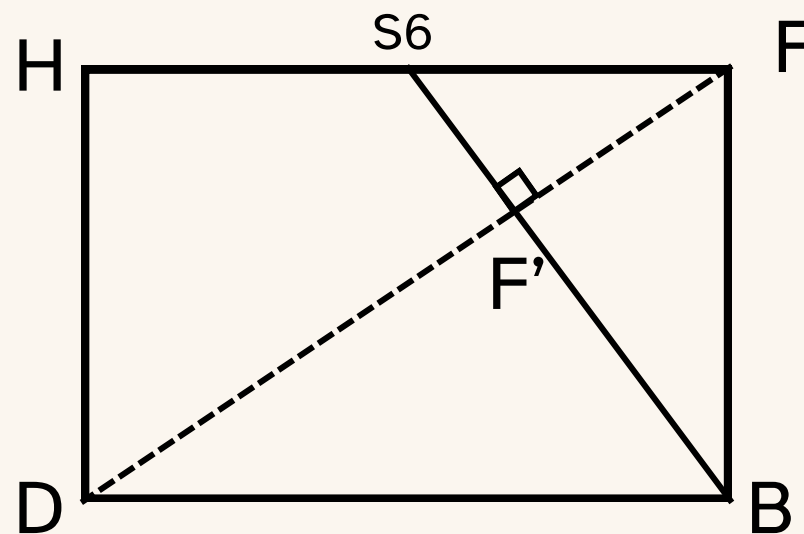
$$\frac{1}{6}a\sqrt{6} = S_1 S'_1$$



* Hitung panjang proyeksi BF pada BFG!

Proyeksi B pada BEG: B
 F pada BEG: F'
 BF pada BEG: BF'

$$\begin{aligned} BF' &= \frac{2}{3}BS_6 \\ &= \frac{2}{3} \frac{1}{2}a\sqrt{6} \\ &= \frac{1}{3}a\sqrt{6} \end{aligned}$$



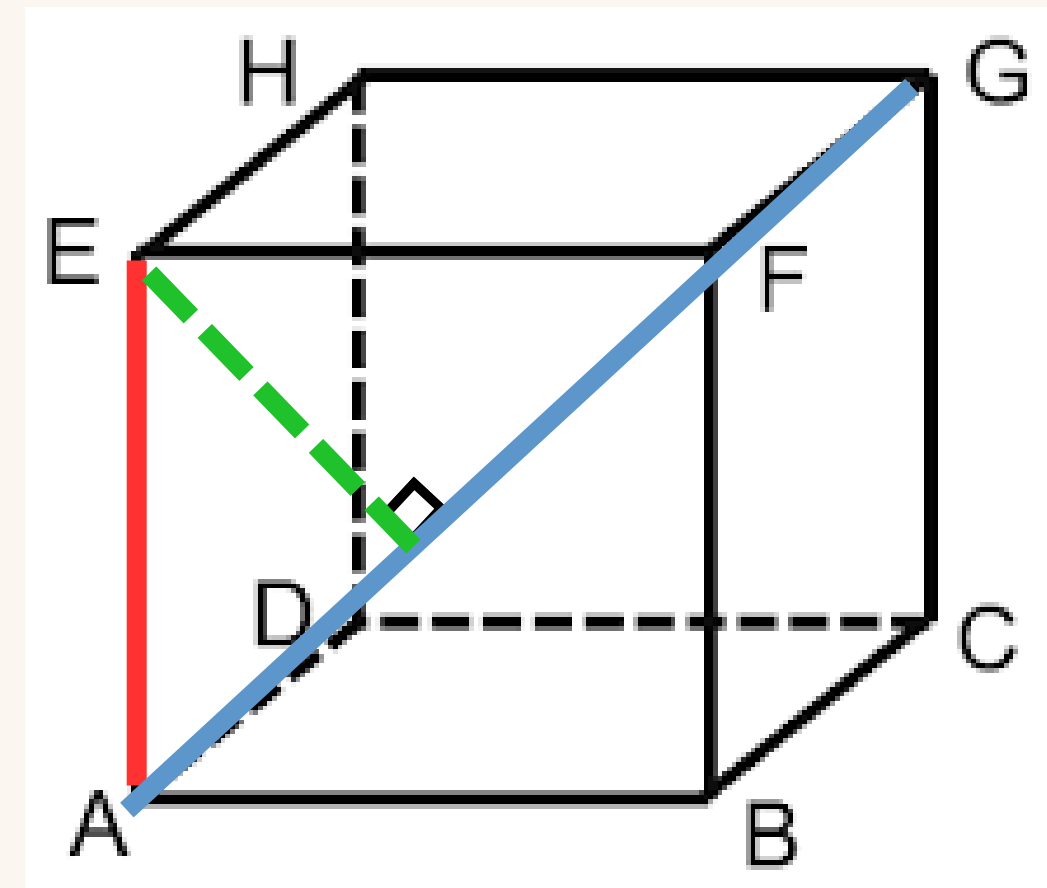
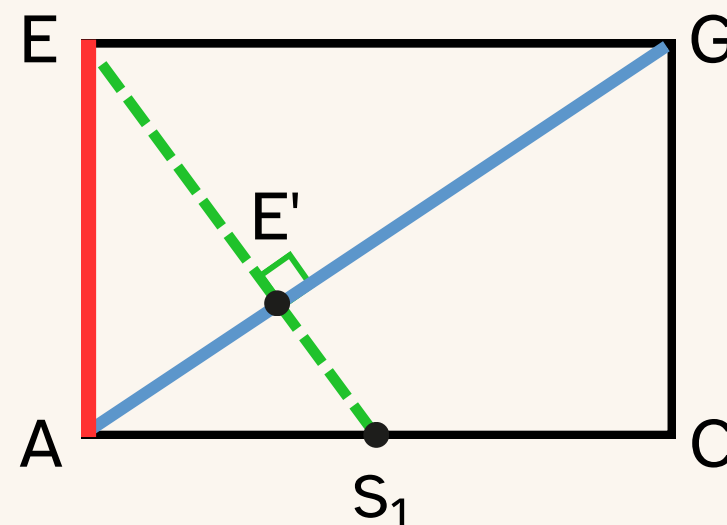
Tentukan Panjang Proyeksi AE pada AG!

Proyeksi E pada AG: E'

$$AG = a$$

$$AE' = \frac{1}{3} AG$$

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



Thank you!

