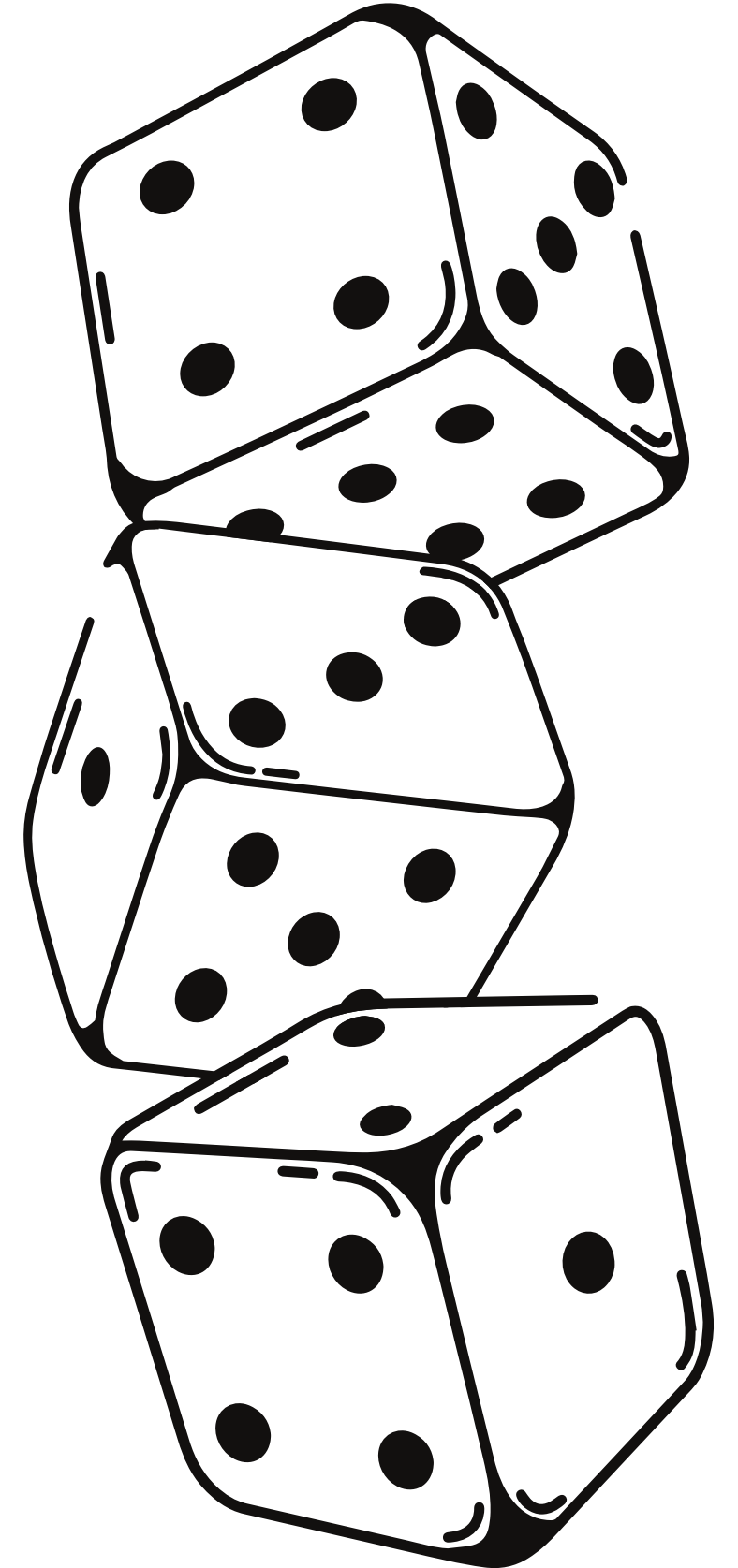


SOAL DIMENSI TIGA

XII MIPA 4 (1, II, 23, 31)



ANGGOTA

Agatha Mahligai Ayu XII MIPA 4/01

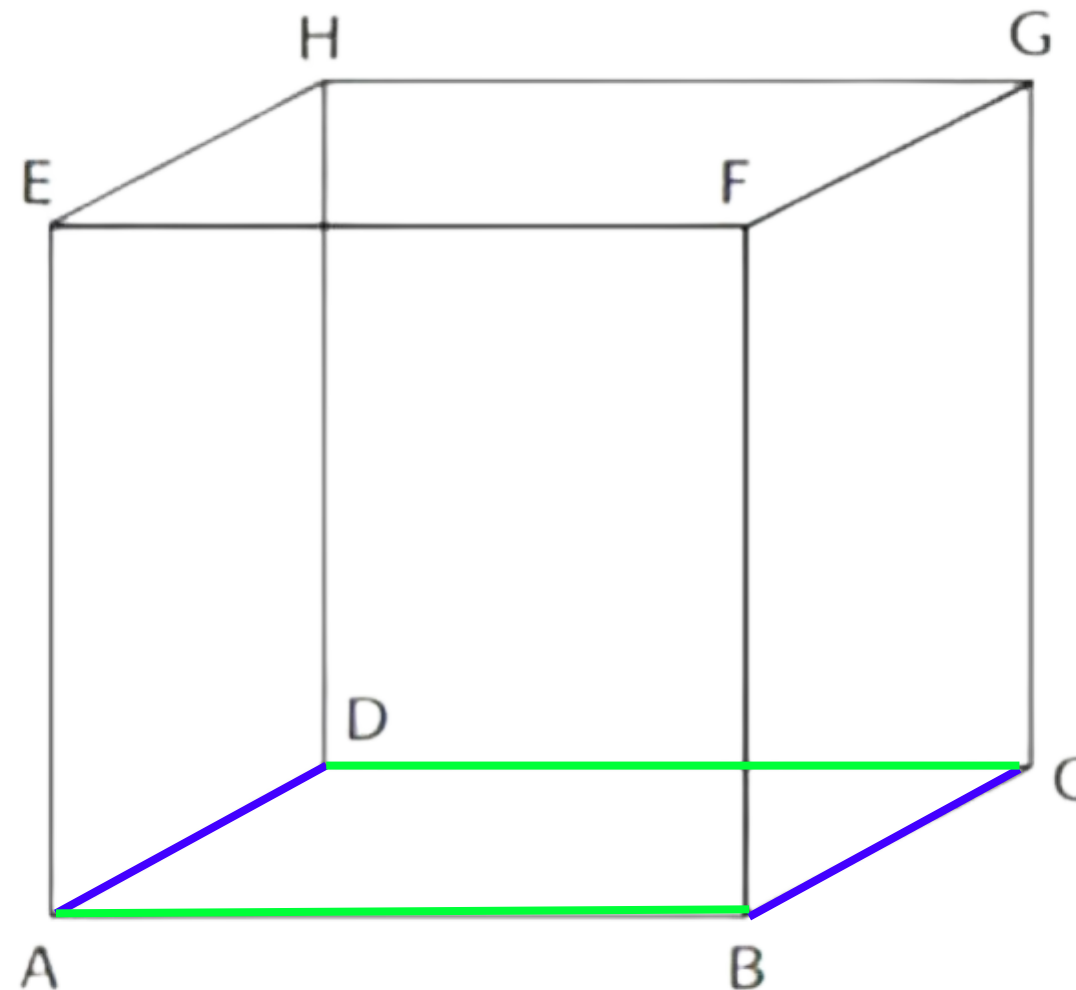
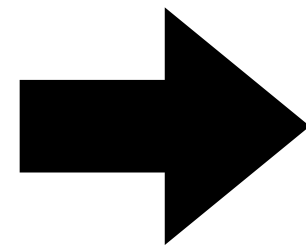
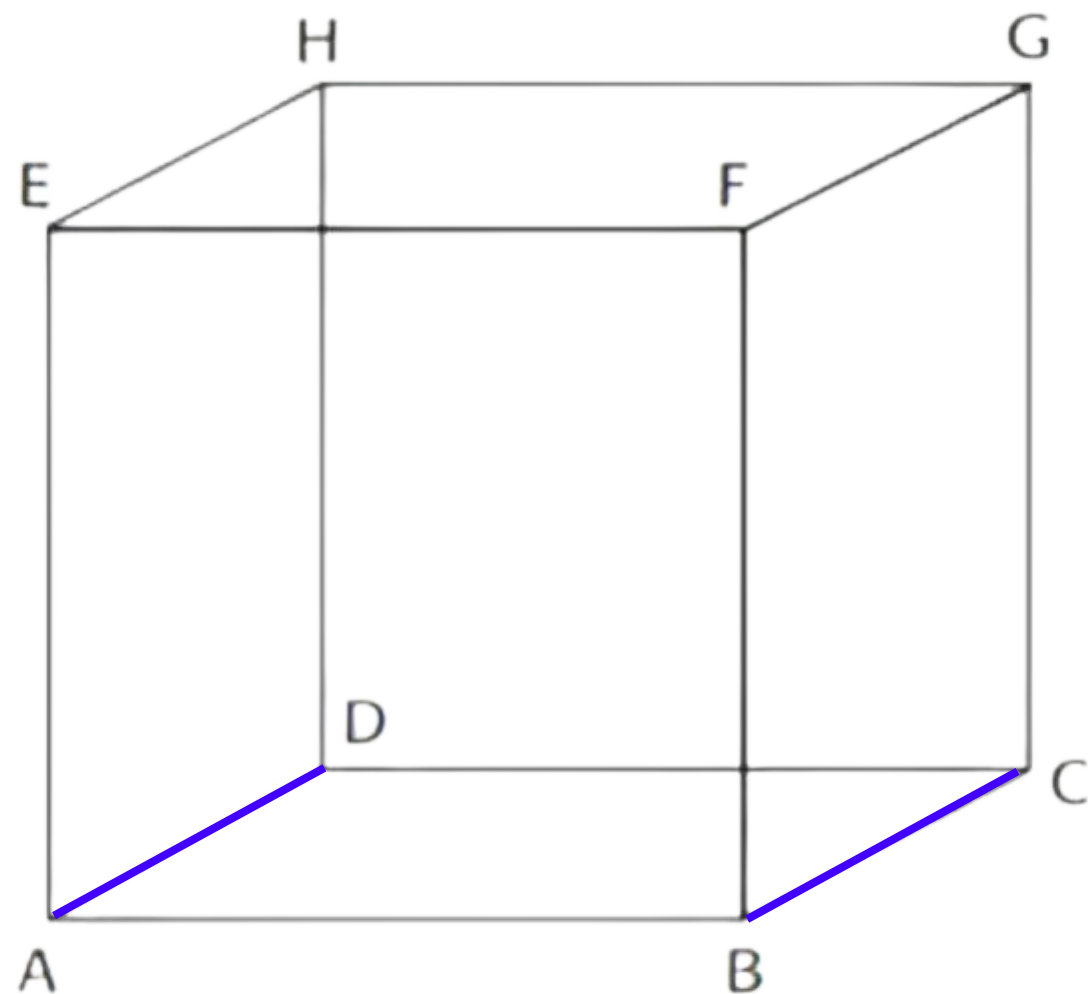
Devi Tjandra XII MIPA 4/11

Katarina Vanya Nathalie XII MIPA 4/23

Raphael Timothy Gunawan XII MIPA 4/31

KETEGAKLURUSAN DUA GARIS

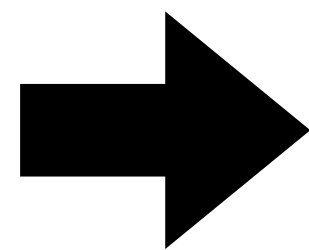
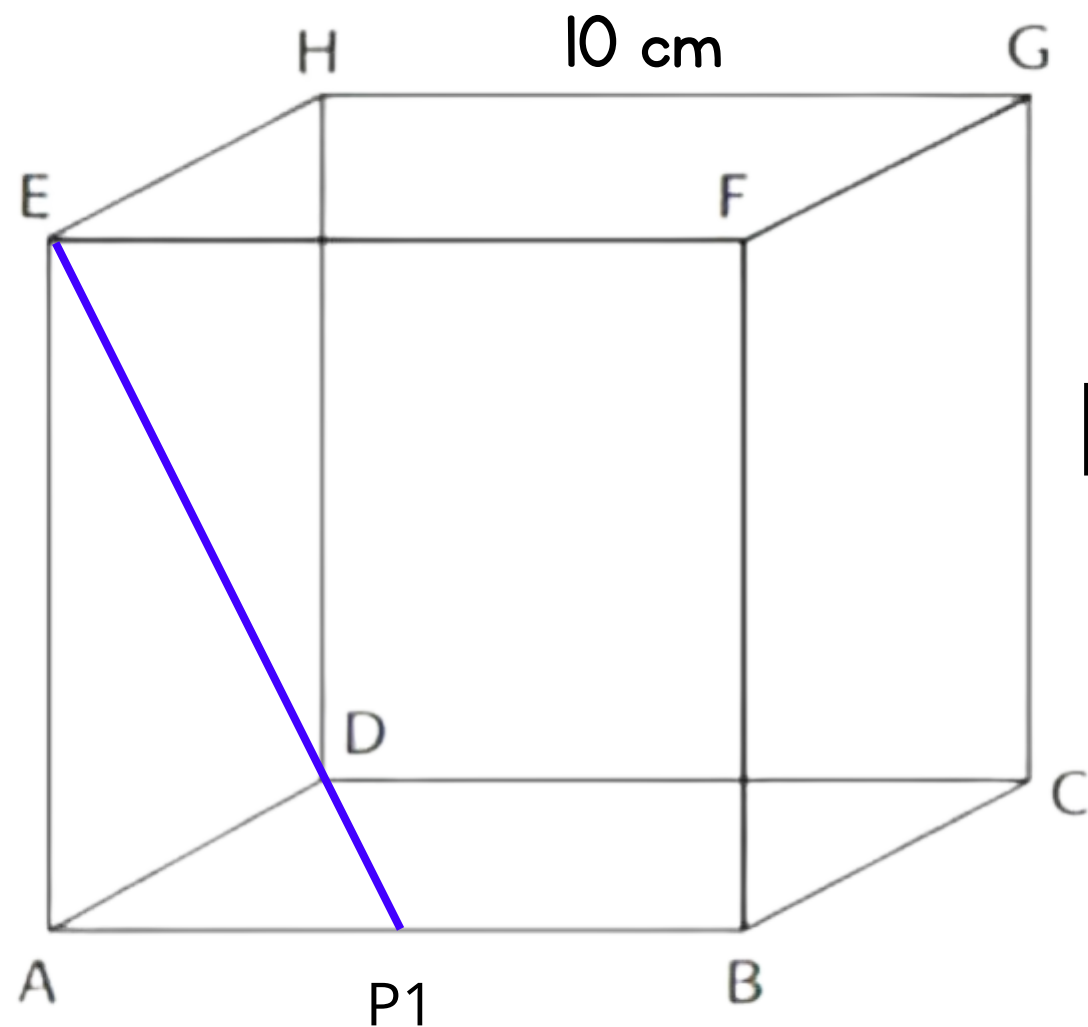
Lukis garis yang tegak lurus AD & BC



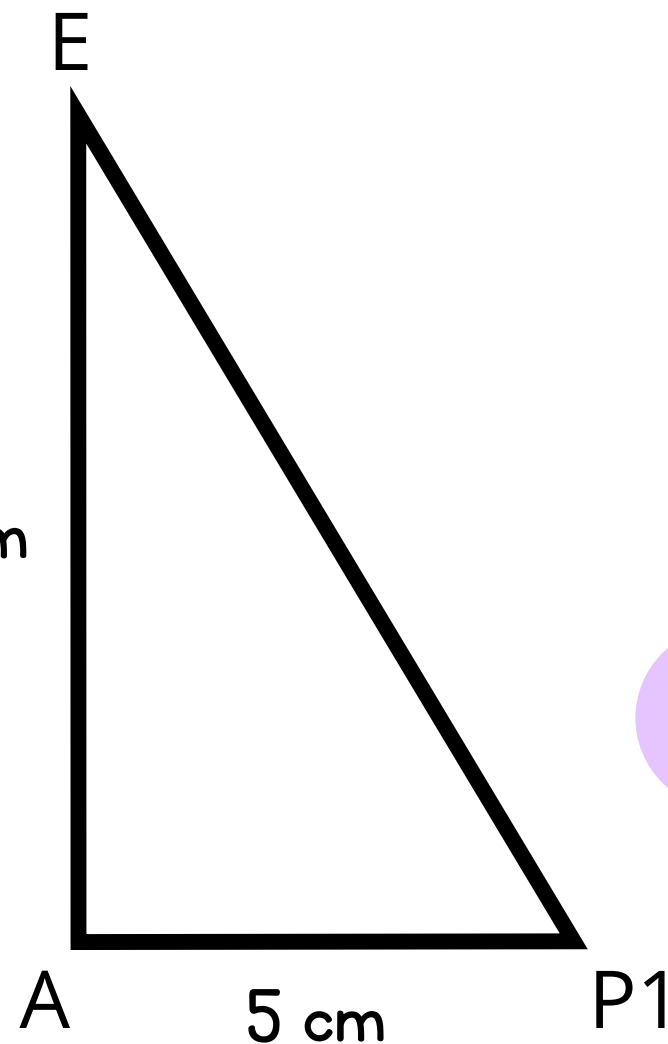
AB atau CD

JARAK TITIK KE TITIK

Jarak titik E ke P1, dimana kubus ABCD.EFGH memiliki rusuk 10 cm



10 cm



$$EPI = \sqrt{AE^2 + AP1^2}$$

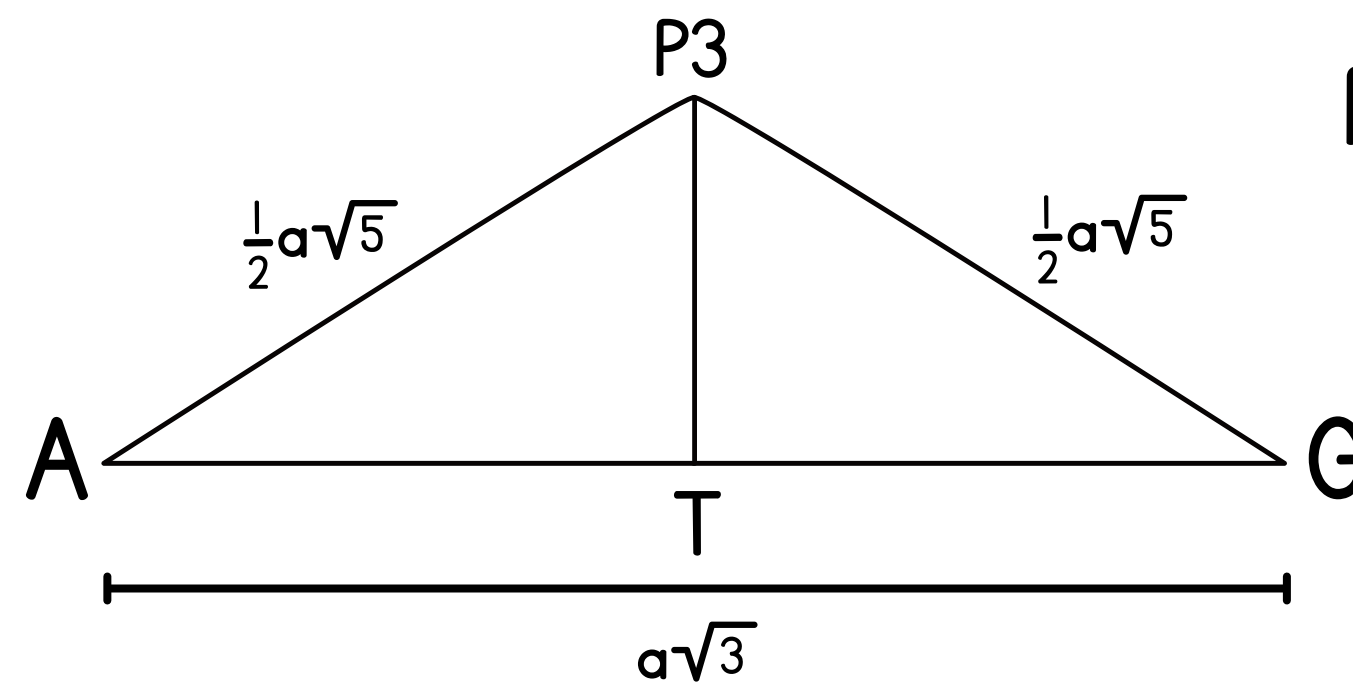
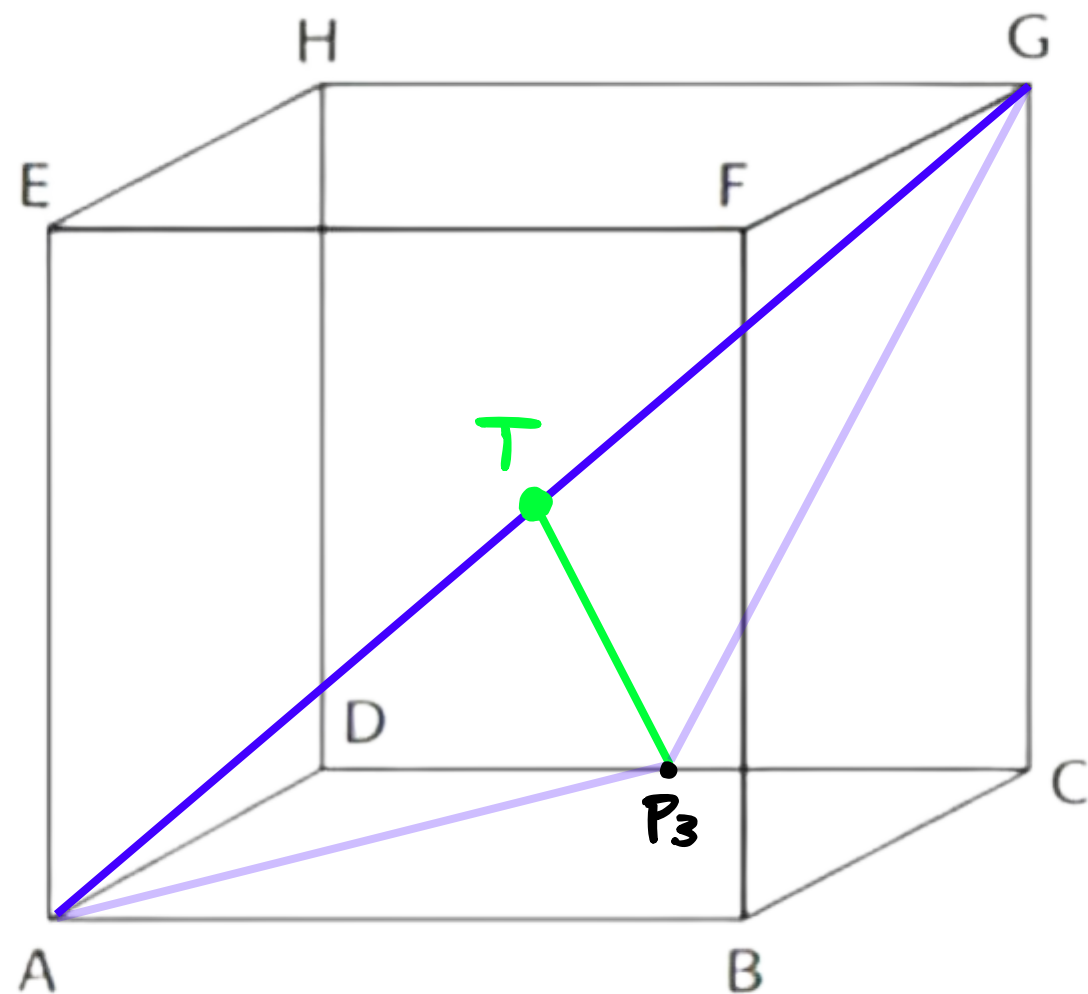
$$EPI = \sqrt{10^2 + 5^2}$$

$$EPI = \sqrt{125}$$

$$EPI = 5\sqrt{5} \text{ cm}$$

JARAK TITIK KE GARIS

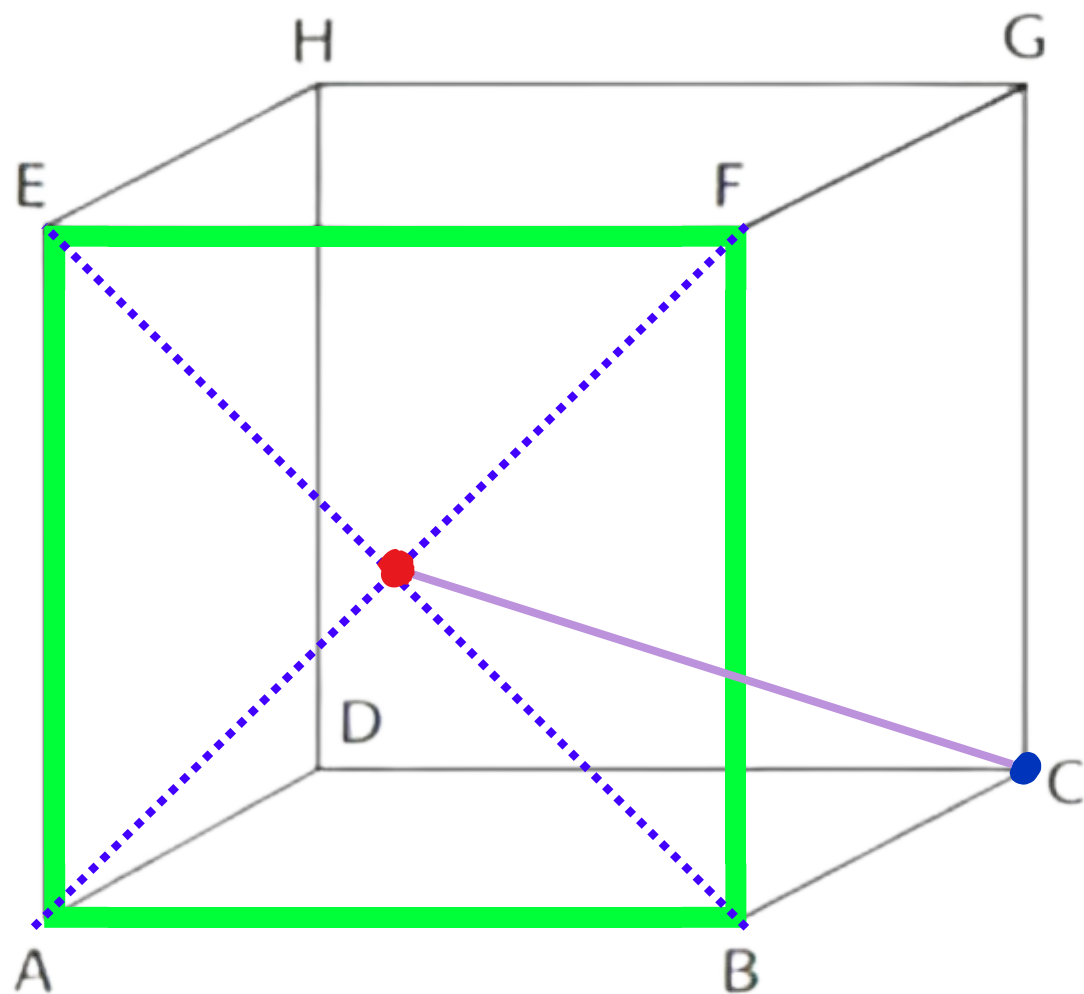
Jarak P3 ke AG?



$$\begin{aligned}
 P3T &= \sqrt{\frac{5}{4}a^2 - \frac{3}{4}a^2} \\
 &= \sqrt{\frac{2}{4}a^2} \\
 &= \frac{1}{2}a\sqrt{2}
 \end{aligned}$$

JARAK TITIK KE BIDANG

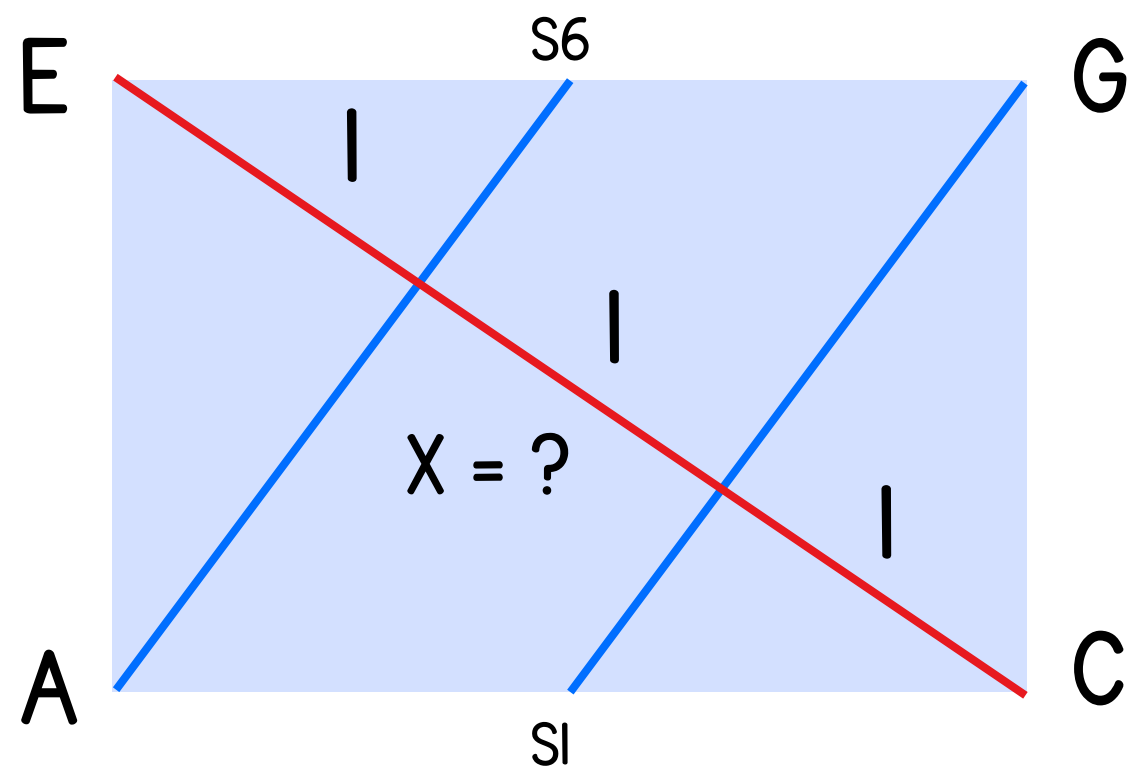
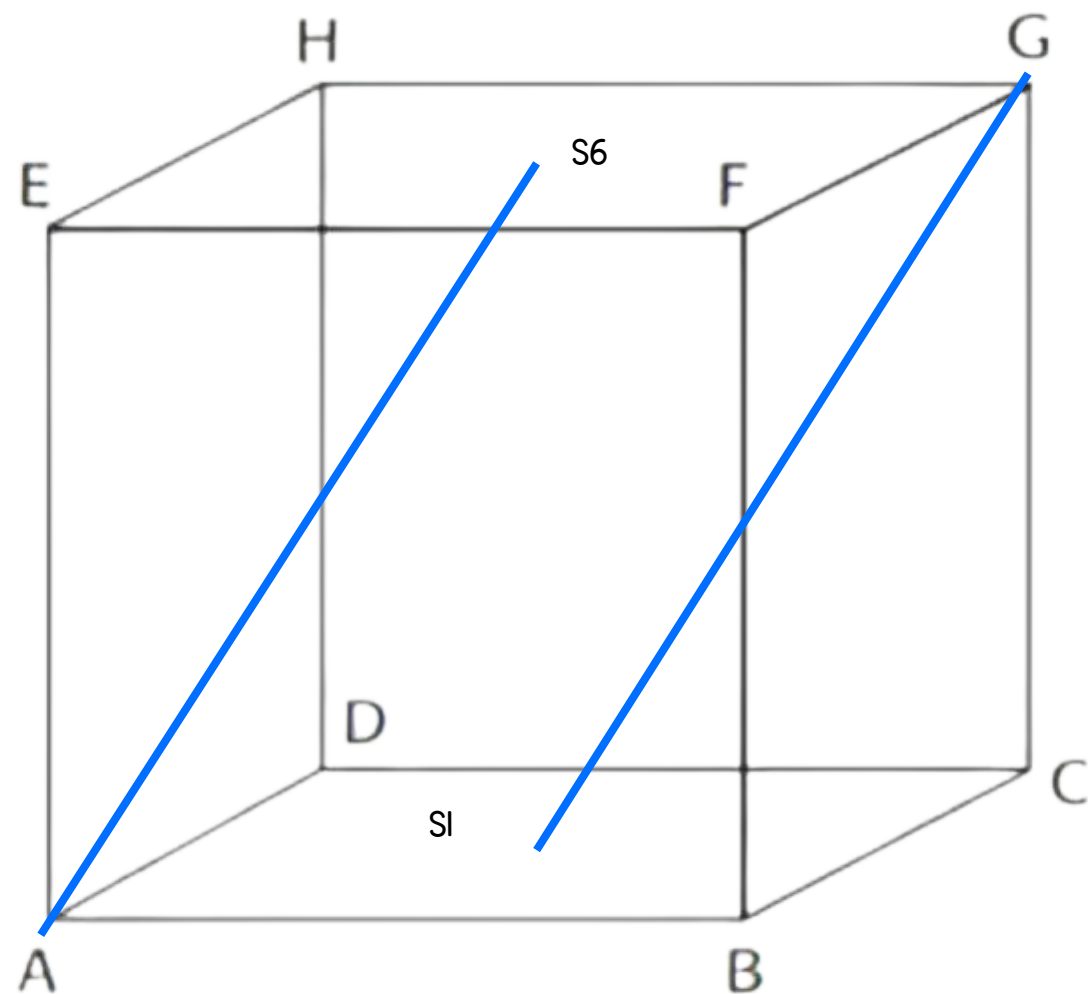
Jarak titik C ke bidang ABFE



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

JARAK 2 GARIS SEJAJAR

Jarak AS6 ke GSI



$$AC = \sqrt{a^2 + a^2} \\ = a\sqrt{2}$$

$$X = \frac{I}{3} EC$$

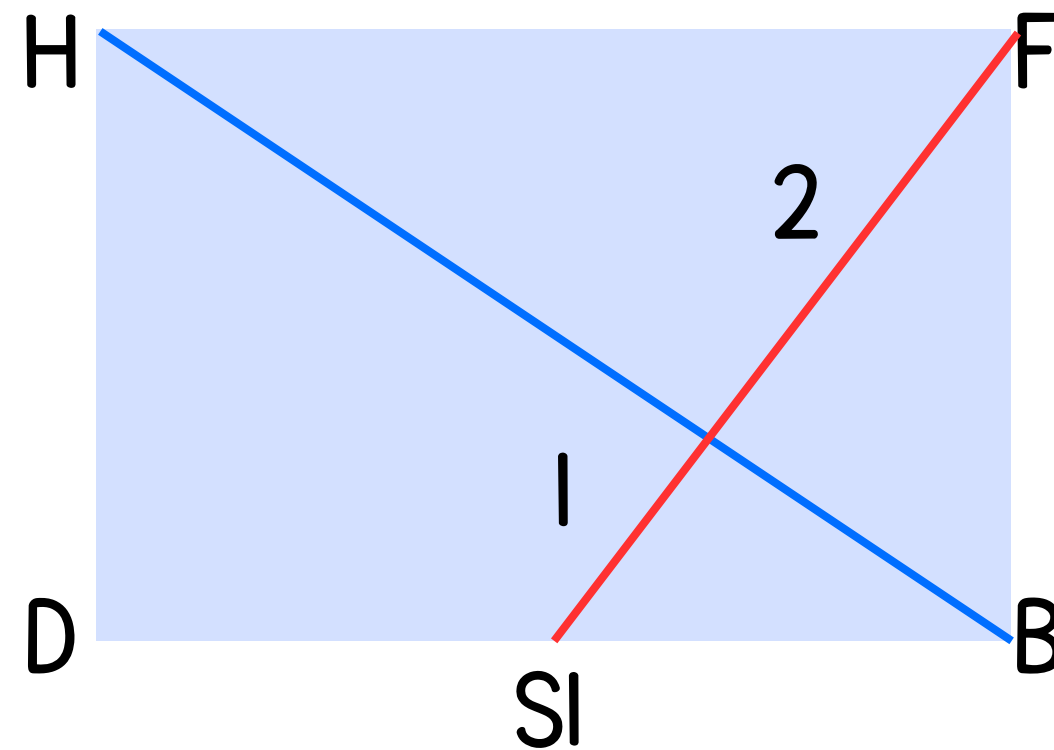
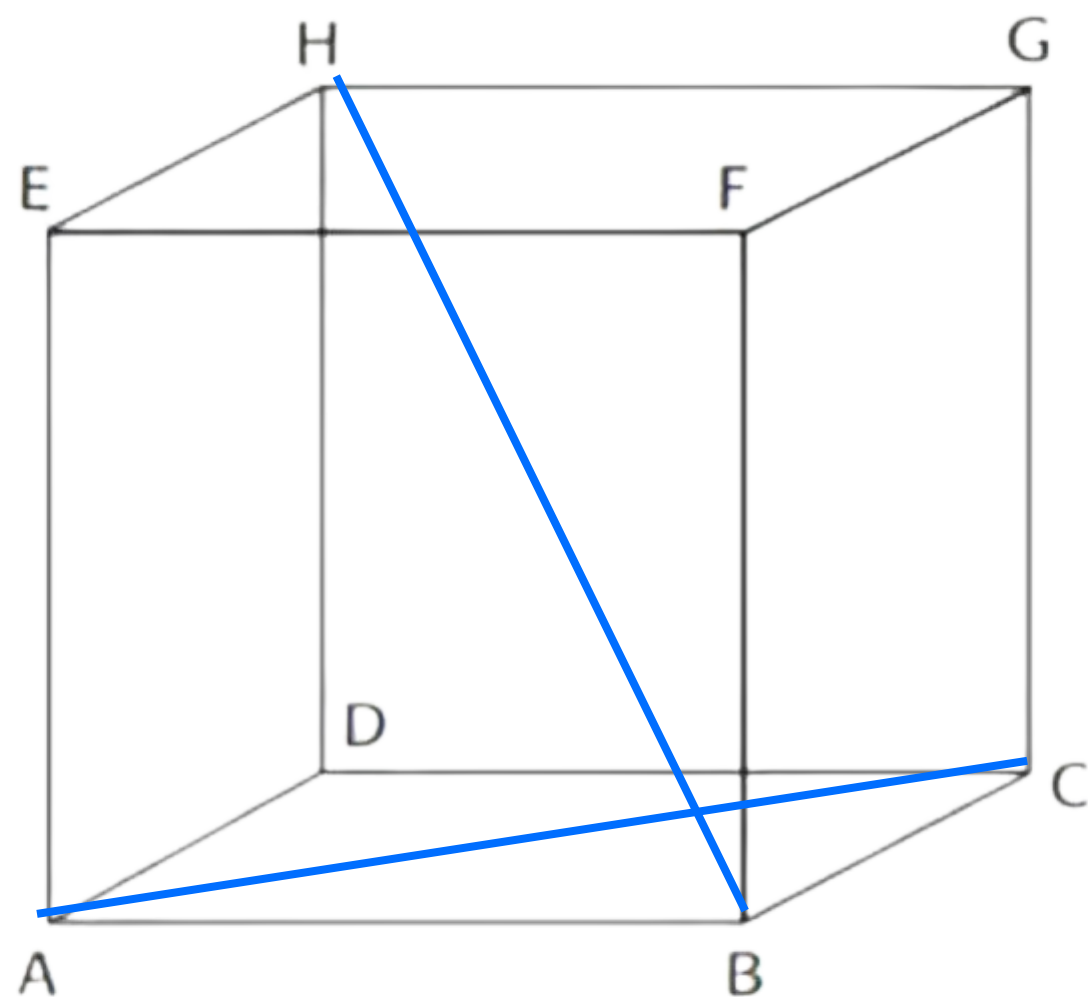
$$EC = \sqrt{2a^2 + a^2}$$

$$EC = a\sqrt{3}$$

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

JARAK 2 GARIS BERSILANGAN

Jarak AC dan BH



Jarak AC dan BH = $\frac{1}{3}$ FSI

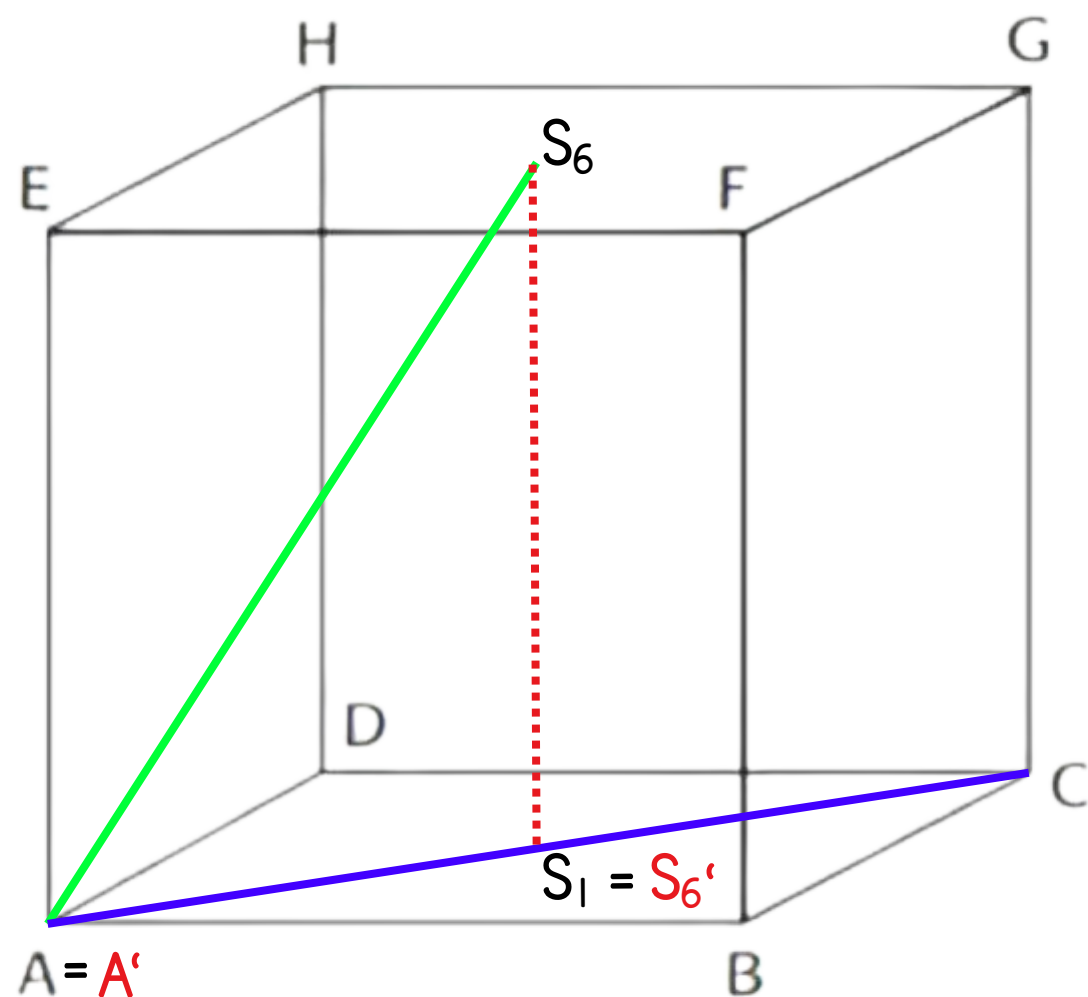
$$FSI = \sqrt{\frac{1}{2}a^2 + a^2}$$

$$FSI = \frac{a\sqrt{6}}{2}$$

$$\text{Jarak AC dan BH} = \frac{a\sqrt{6}}{6}$$

PROYEKSI GARIS KE GARIS

Tentukan proyeksi garis AS_6 ke AC!

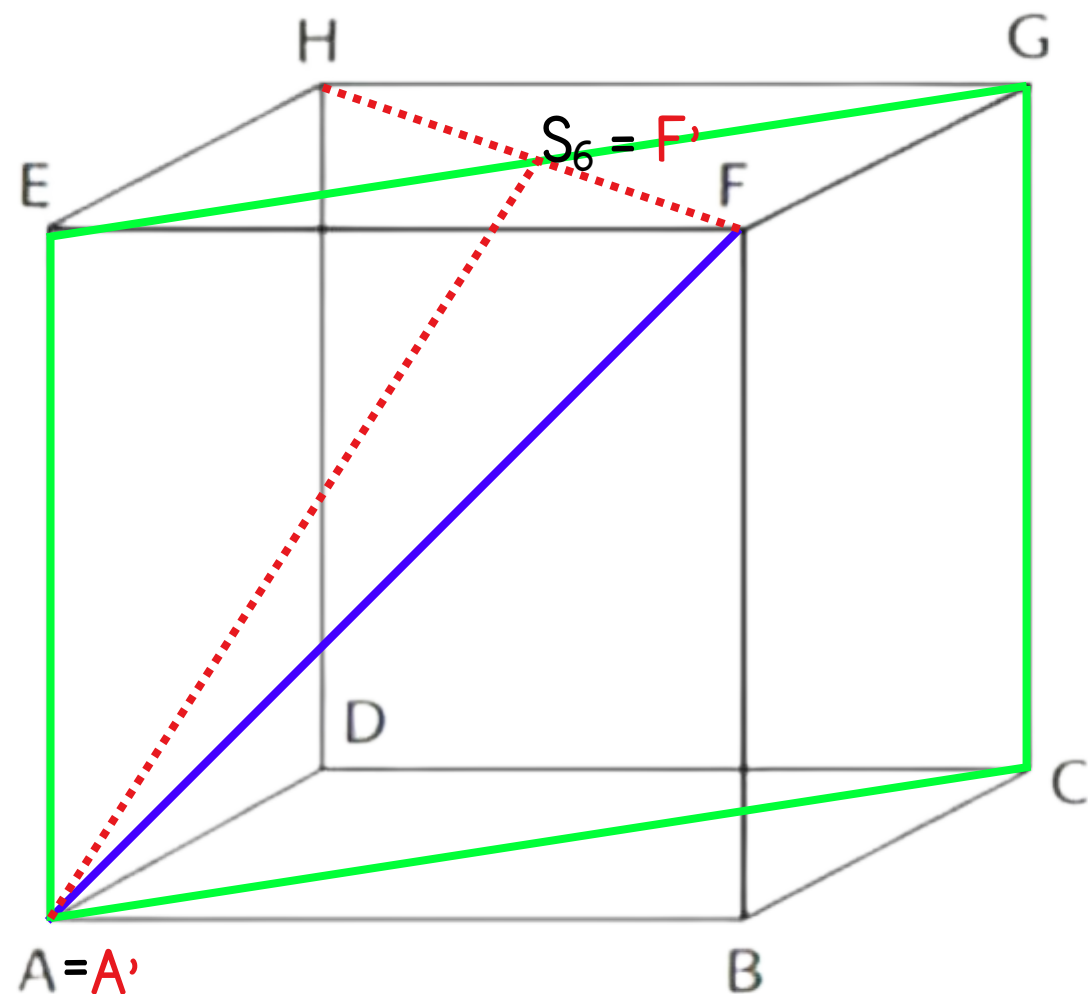


Cari A' dan S dengan memakai garis yang tegak lurus AC: AE dan S_1S_6

$$A' S_6' = \frac{1}{2}a\sqrt{2}$$

PROYEKSI GARIS KE BIDANG

Tentukan proyeksi AF ke ACGE!



Cari garis tegak lurus
bidang ACGE: BD dan FH

A sudah di bidang,

maka $A = A'$

F' ada di S_6

$$A'F' = \frac{1}{2}a\sqrt{6}$$