



LEMBAR KERJA PESERTA DIDIK (LKPD)
DIMENSI TIGA
AKTIVITAS 1 - MENEMUKAN RUMUS SUNSHINE



Nama :

Kelas :

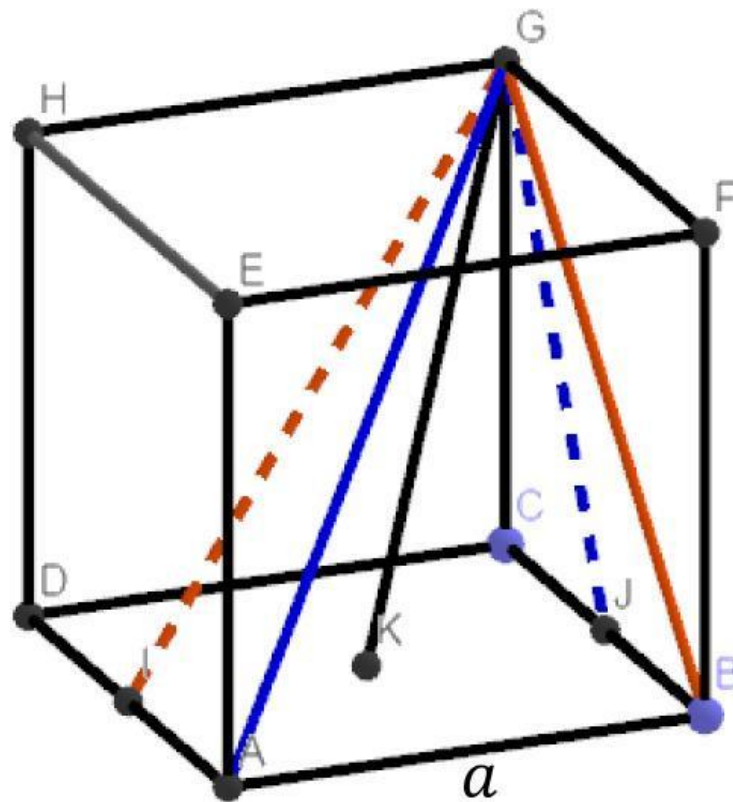
No. Absen :

Kelompok :

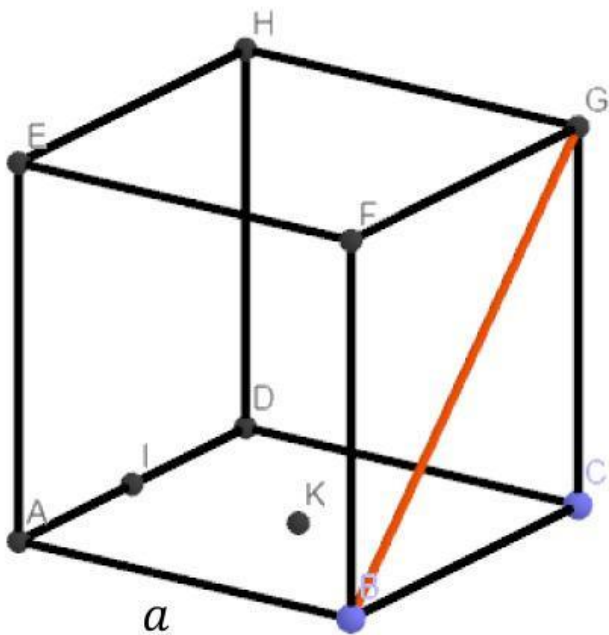


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RUMUS “SUNSHINE”



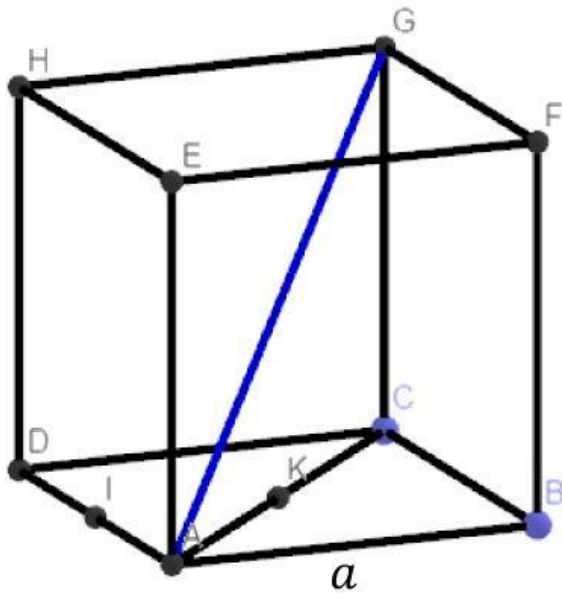
DIAGONAL BIDANG



Lihat $\triangle BCG$

$$\begin{aligned} BG &= \sqrt{BC^2 + CG^2} \\ &= \sqrt{a^2 + a^2} \\ &= \sqrt{2a^2} \\ &= a\sqrt{2} \end{aligned}$$

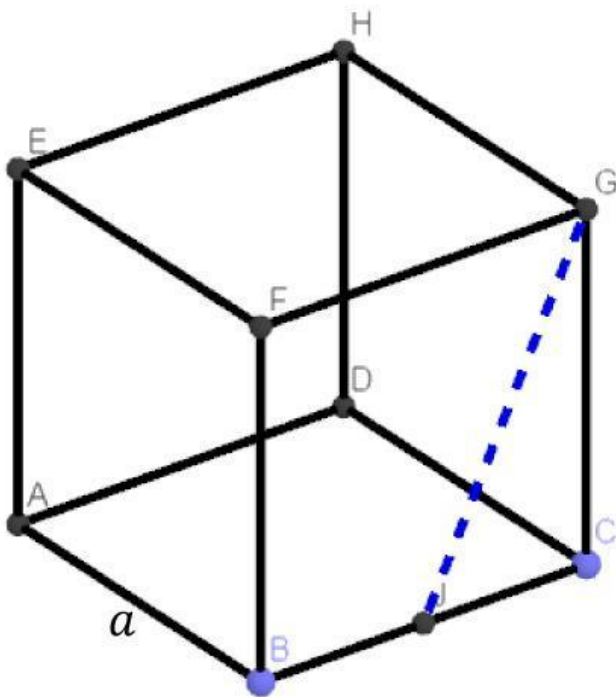
DIAGONAL RUANG



Lihat $\triangle ACG$

$$\begin{aligned} AG &= \sqrt{AC^2 + CG^2} \\ &= \sqrt{(a\sqrt{2})^2 + a^2} \\ &= \sqrt{2a^2 + a^2} \\ &= \sqrt{3a^2} \\ &= a\sqrt{3} \end{aligned}$$

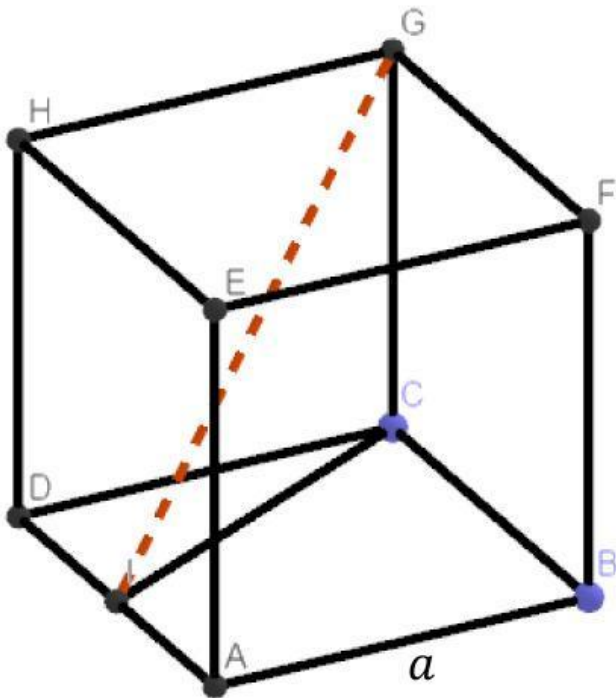
POJOK KE TENGAH RUSUK DEKAT



Lihat $\triangle CGJ$

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

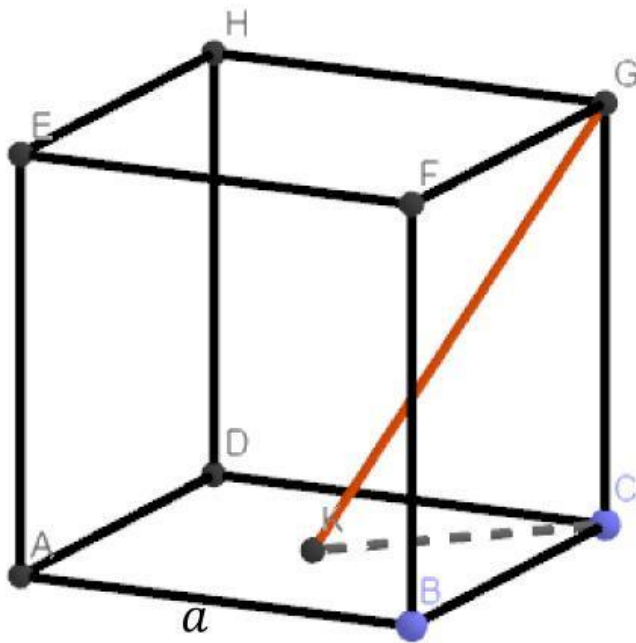
POJOK KE TENGAH RUSUK JAUH



Lihat $\triangle CGI$

$$\begin{aligned} GJ &= \sqrt{CG^2 + CI^2} \\ &= \sqrt{a^2 + \left(\frac{1}{2}a\sqrt{5}\right)^2} \\ &= \sqrt{a^2 + \frac{1}{4}a^2 5} \\ &= \sqrt{a^2 + \frac{5}{4}a^2} \\ &= \sqrt{\frac{9}{4}a^2} \\ &= \frac{1}{2}a\sqrt{9} \end{aligned}$$

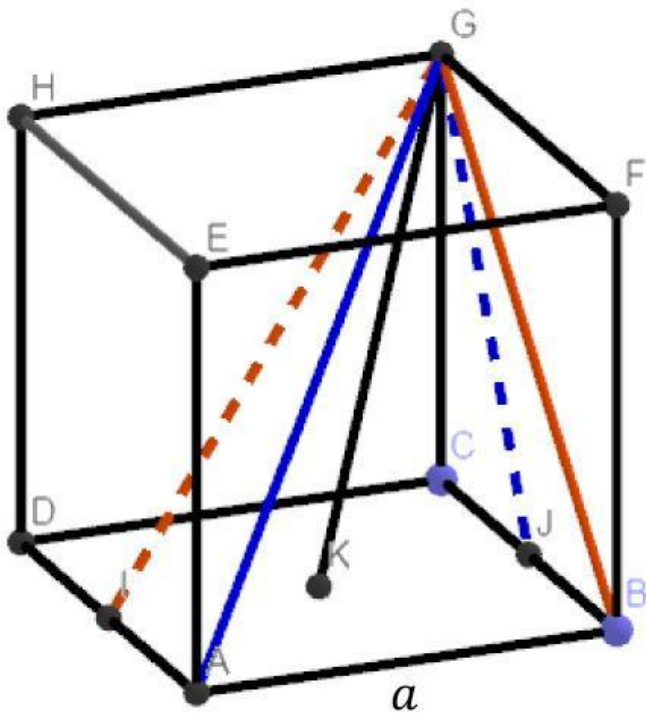
POJOK KE TENGAH BIDANG



Lihat $\triangle CGK$

$$\begin{aligned} GK &= \sqrt{CG^2 + CK^2} \\ &= \sqrt{a^2 + \left(\frac{1}{2}a\sqrt{2}\right)^2} \\ &= \sqrt{a^2 + \frac{1}{4}a^2 \cdot 2} \\ &= \sqrt{a^2 + \frac{2}{4}a^2} \\ &= \sqrt{\frac{6}{4}a^2} \\ &= \frac{1}{2}a\sqrt{6} \end{aligned}$$

RUMUS “SUNSHINE”



POJOK KE POJOK

1. Diagonal Bidang

$$BG = a\sqrt{2}$$

2. Diagonal Ruang

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

POJOK KE TENGAH RUSUK

3. $GJ = \frac{1}{2}a\sqrt{5}$

4. $GI = \frac{1}{2}a\sqrt{9}$

POJOK KE TENGAH BIDANG

5. $GK = \frac{1}{2}a\sqrt{6}$

