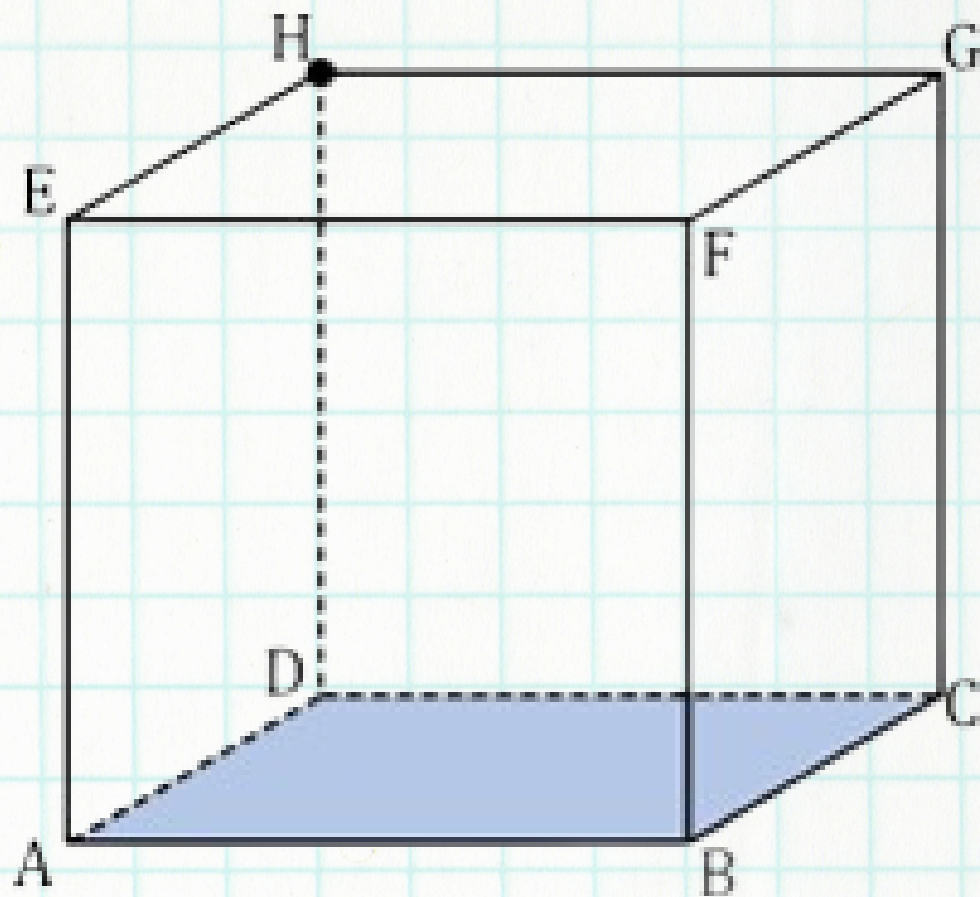


DIMENSI TIGA



ANGGOTA KELOMPOK

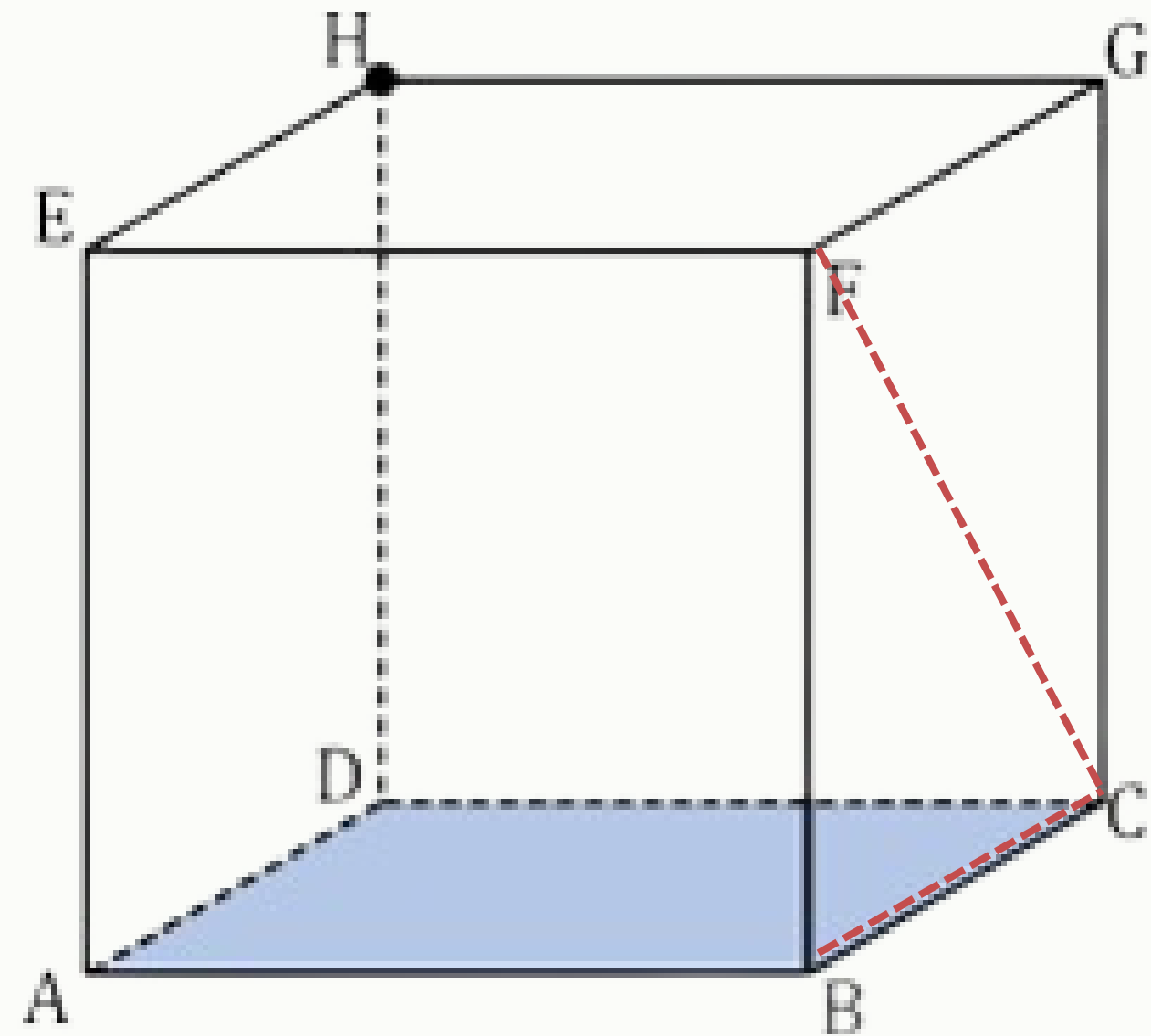
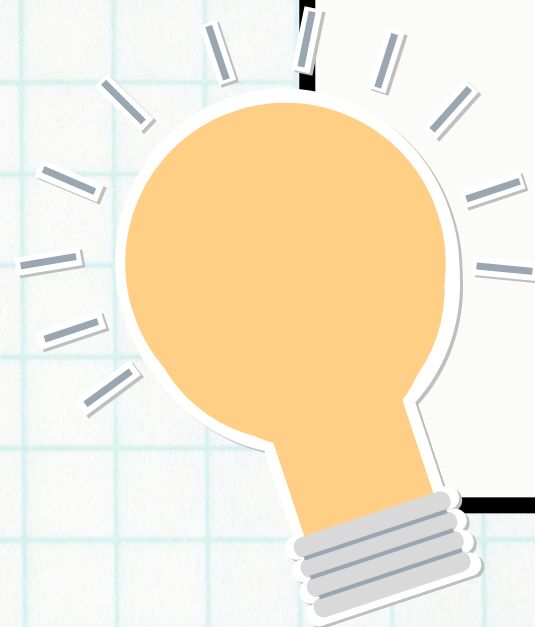
- 1 Caroline Joanne S (XII MIPA 7/07)
- 2 Evan Tedjakusuma (XII MIPA 7/14)
- 3 Ivone Claresta (XII MIPA 7/19)
- 4 Jophiel Nuralim (XII MIPA Y/23)



KETEGAKLURUSAN DUA GARIS

A

Buktikan BC tegak lurus dengan CF

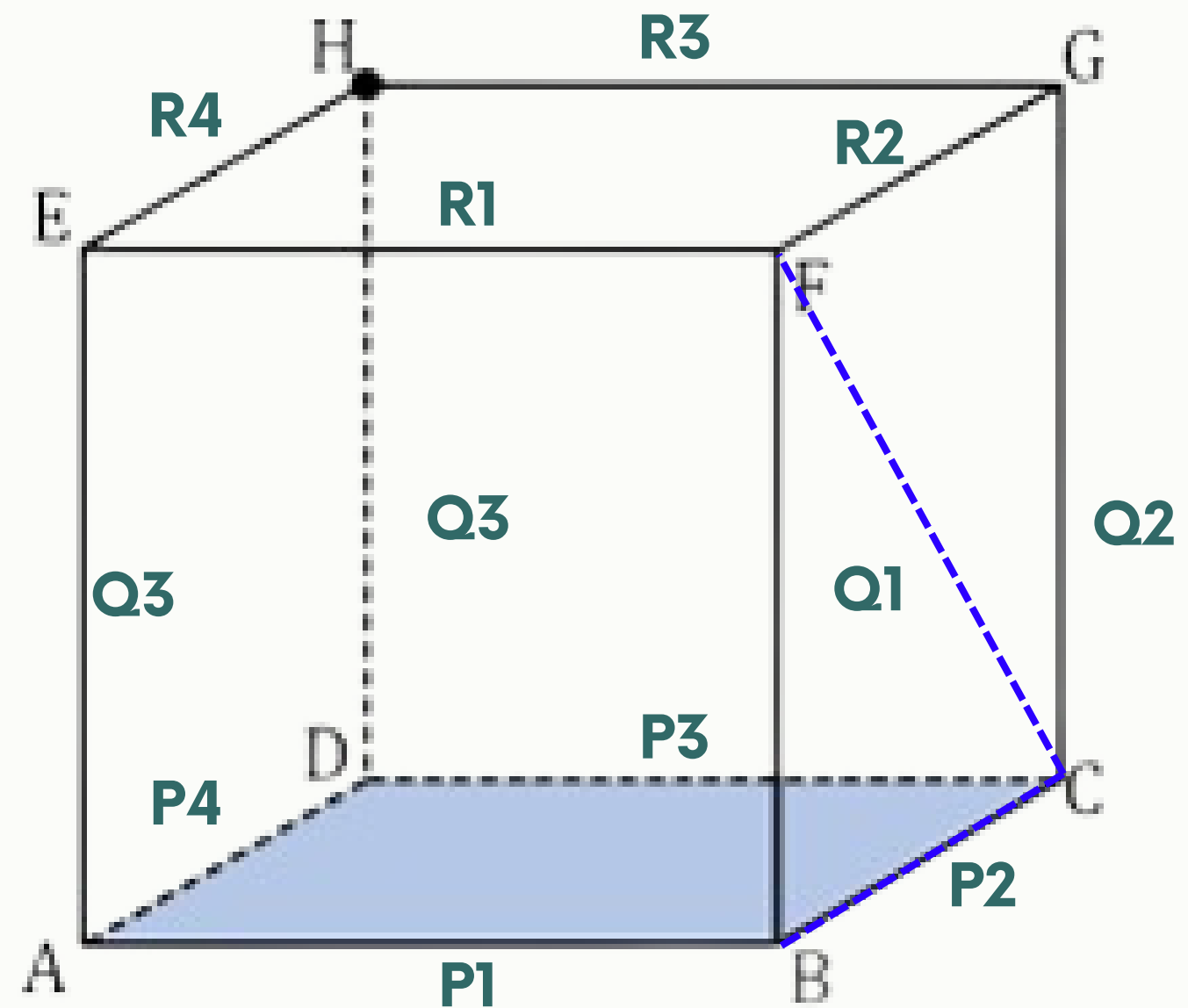
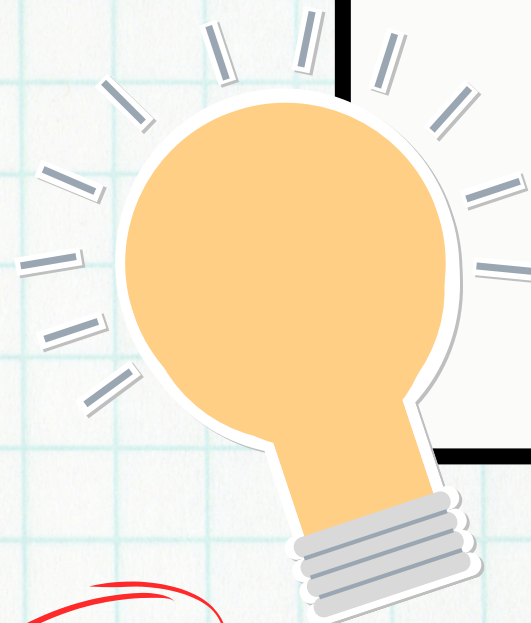


JAWABAN

A

- $BC \perp BF$
- $BC \perp CG$

Sehingga $BC \perp$ BCFG,
dengan begitu $BC \perp$
dengan semua garis di
BCFG termasuk garis CF

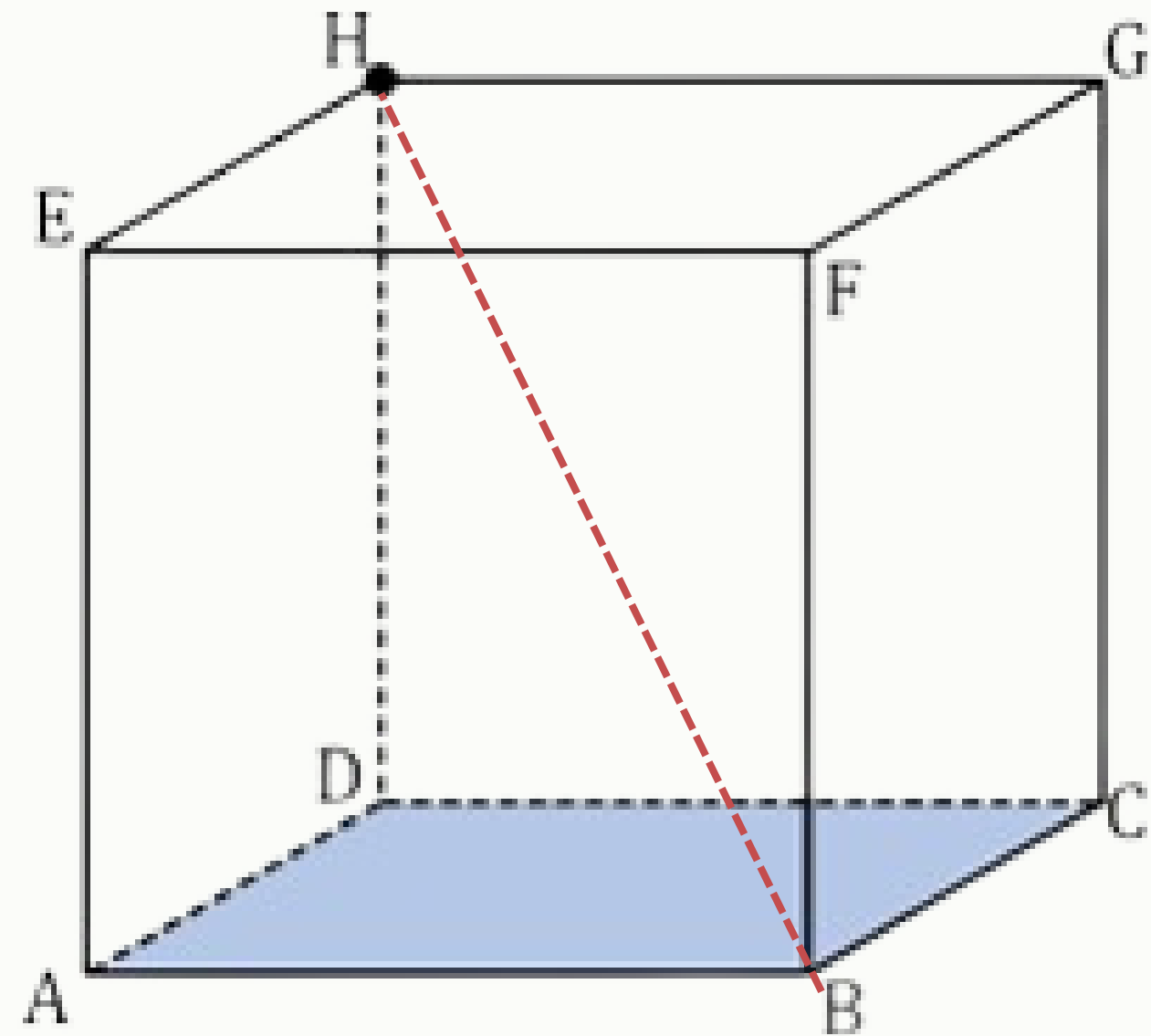
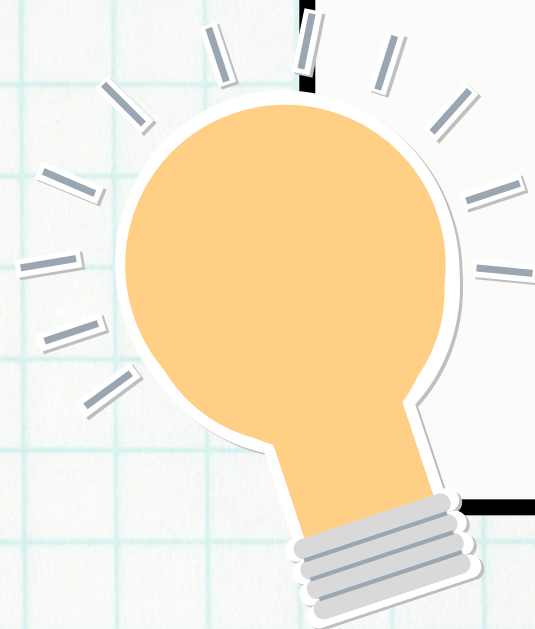


Jadi panjang E ke B = BC ke EH = $a\sqrt{2}$

JARAK TITIK KE TITIK

B

**Tentukan panjang
proyeksi H ke B**

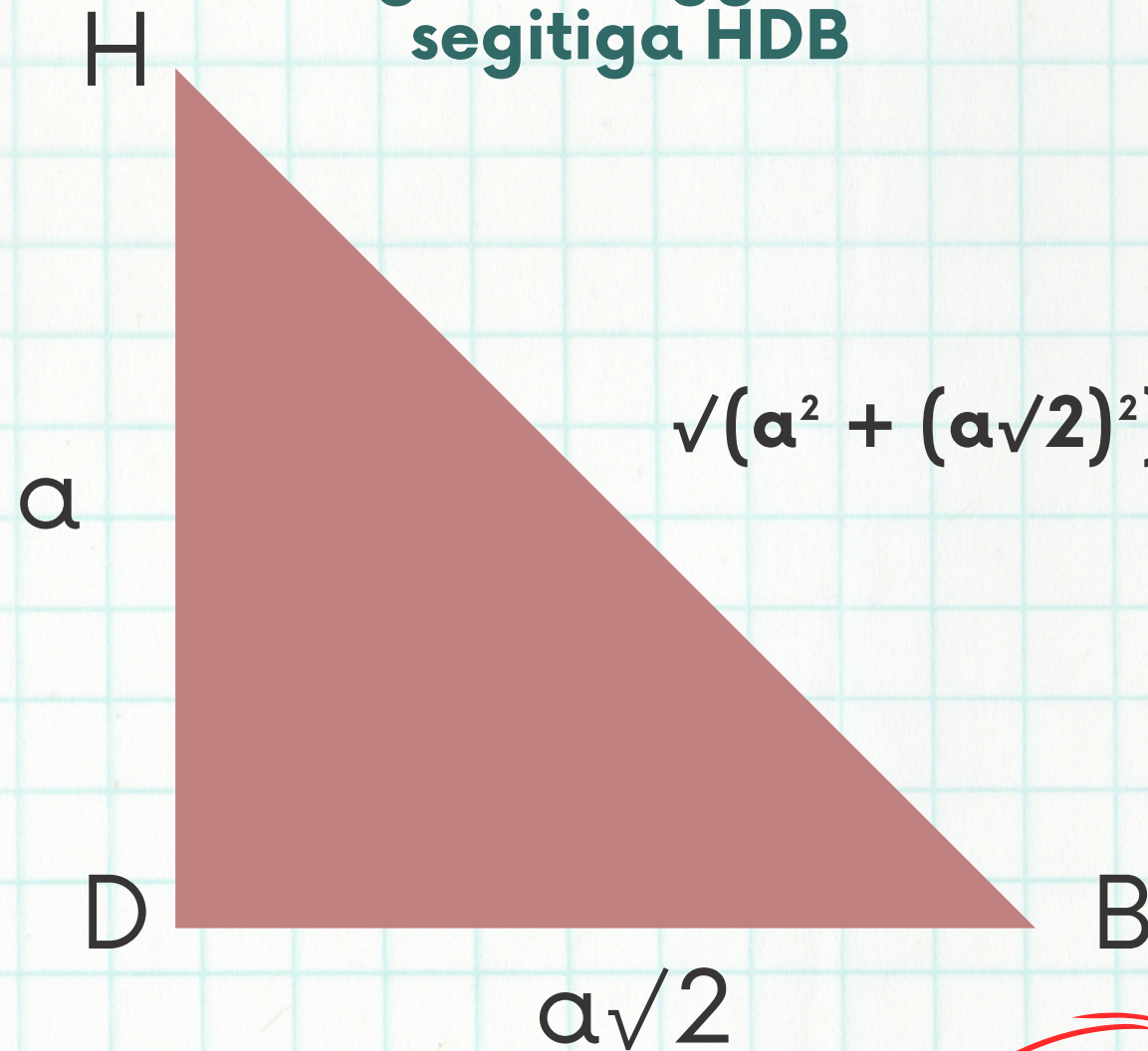


JAWABAN

B

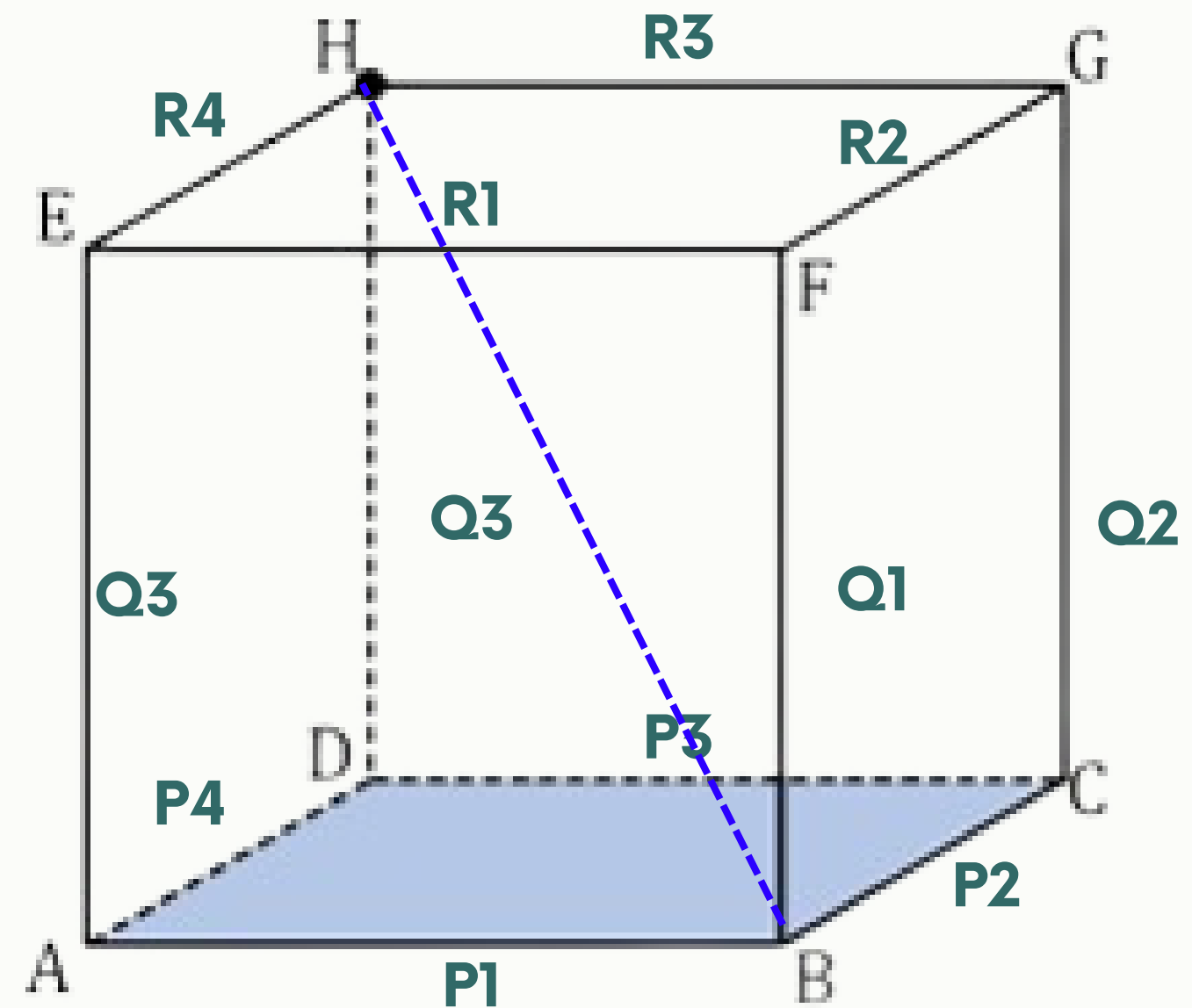
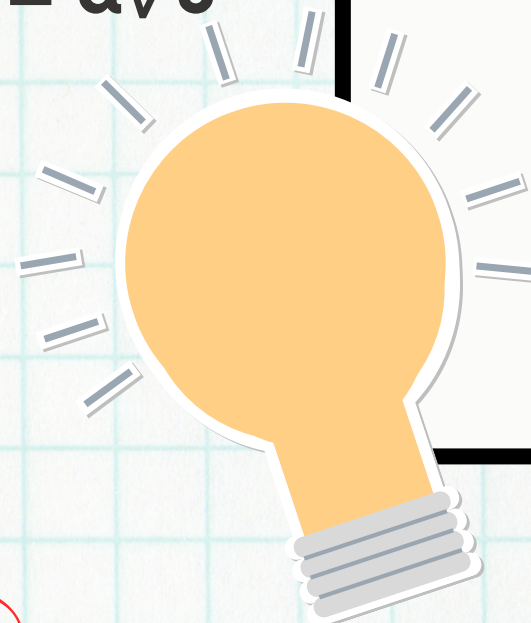
H ke B

Jarak H ke B bisa dihitung
dengan menggunakan
segitiga HDB

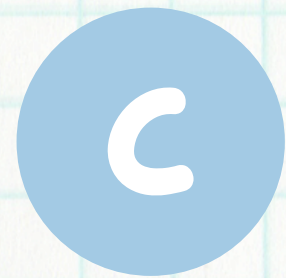


$$\sqrt{(a^2 + (a\sqrt{2})^2)} = a\sqrt{3}$$

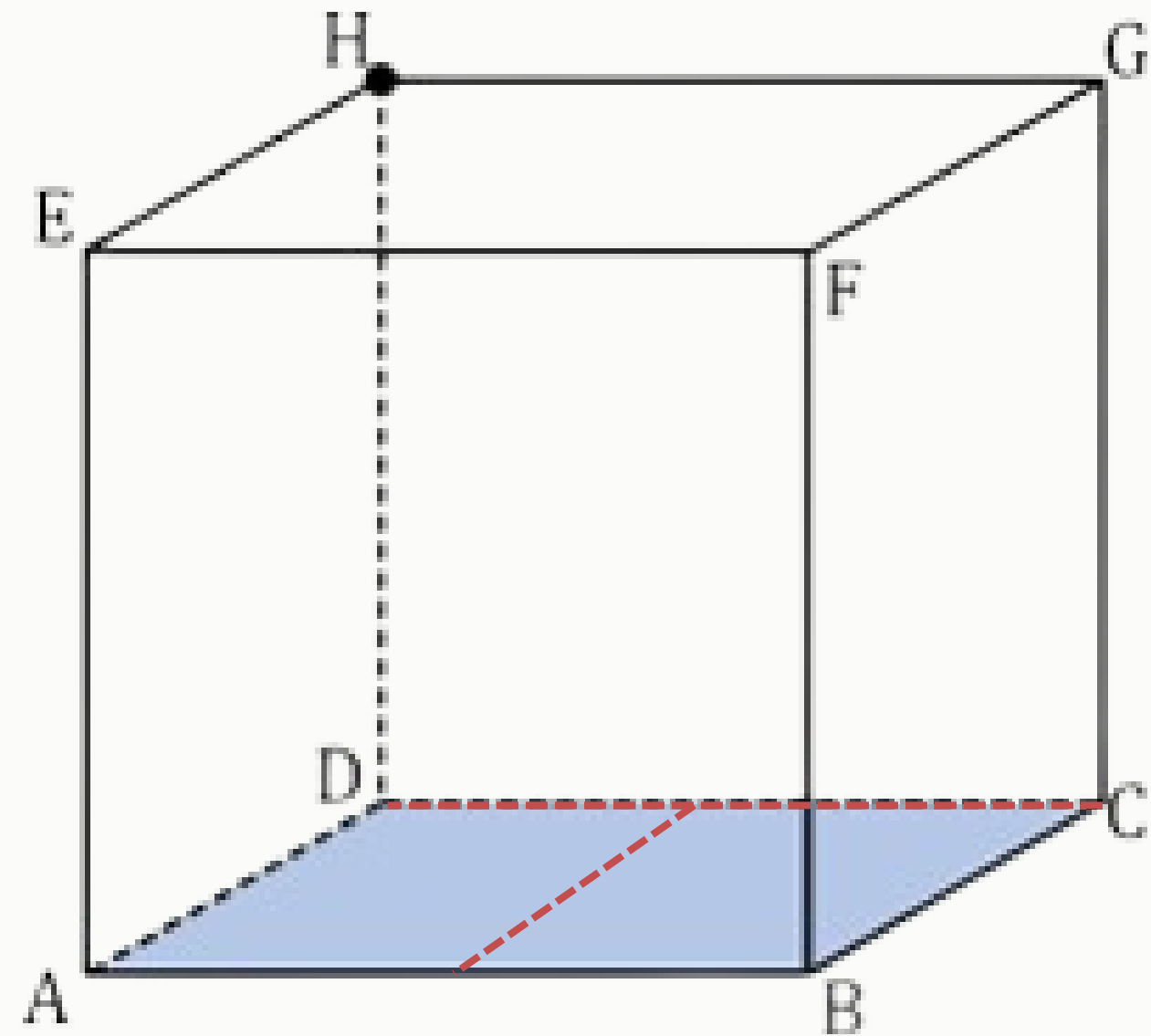
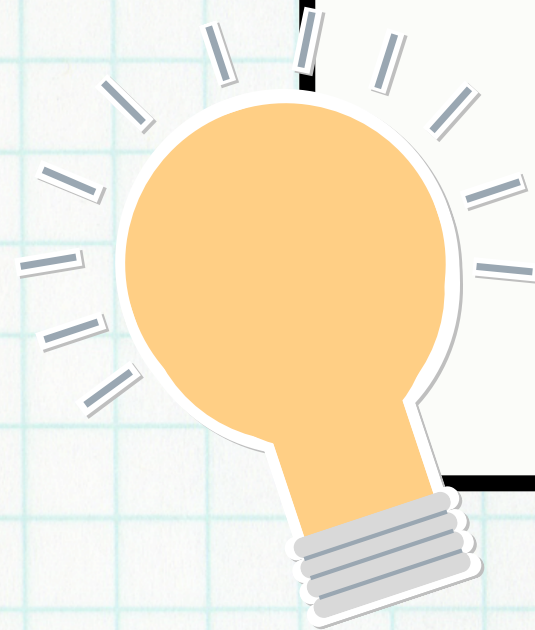
Jadi panjang H ke B $a\sqrt{3}$



JARAK TITIK KE GARIS



**Tentukan panjang
proyeksi P1 ke DC**



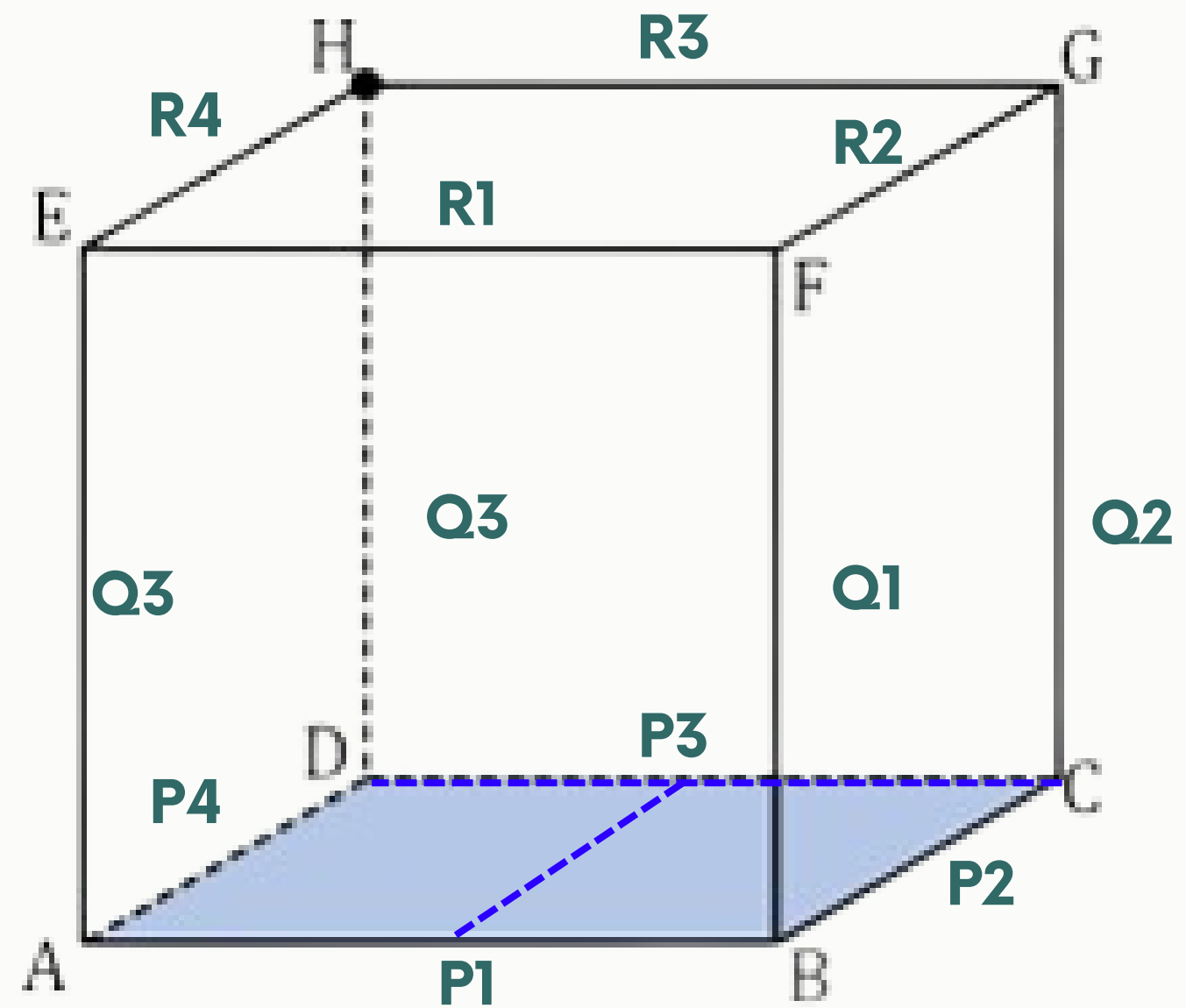
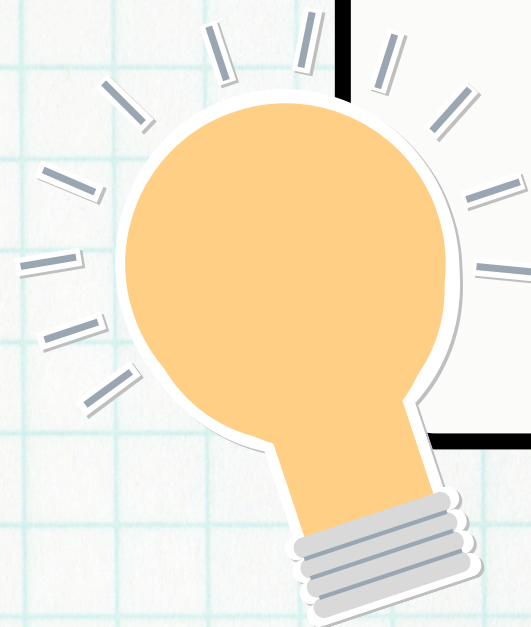
JAWABAN

C

P1 ke DC

Proyeksikan P1 ke DC yaitu
P1P3

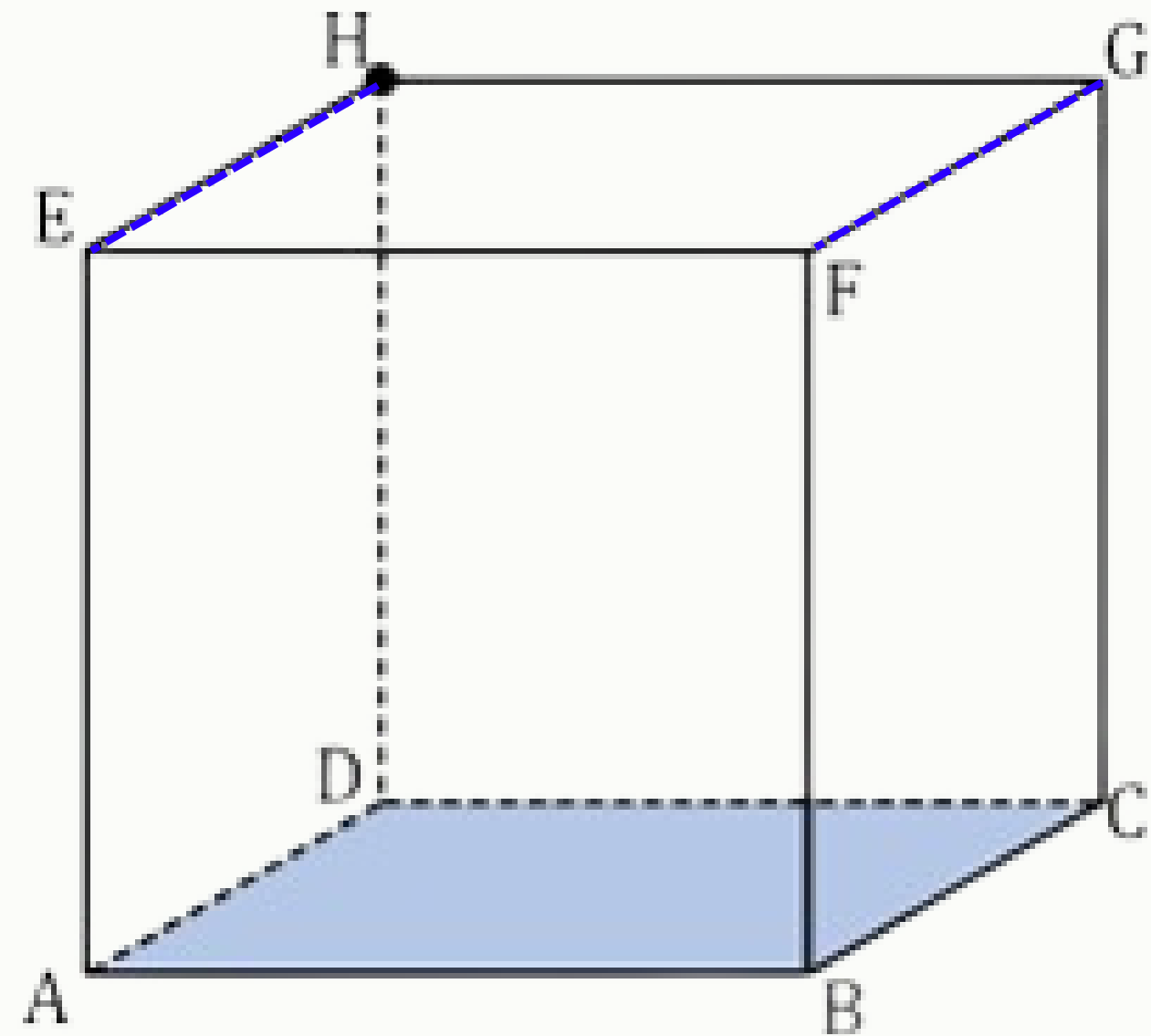
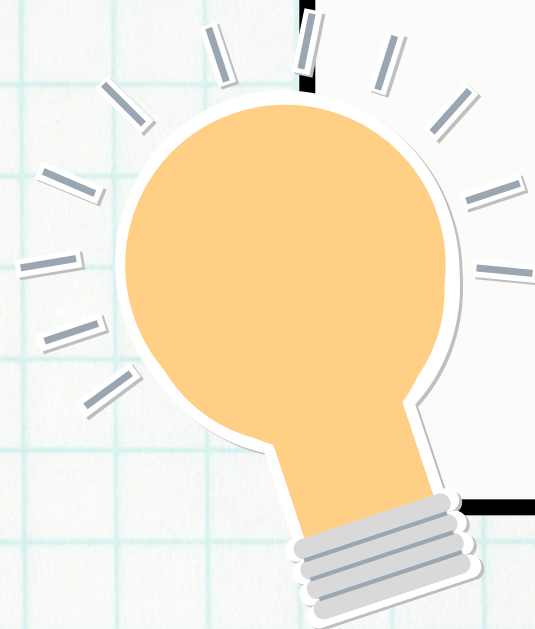
P1P3 // BC, Bc
merupakan sisi kubus,
sehingga jarak P1 ke DC
adalah a



JARAK 2 GARIS SEJAJAR

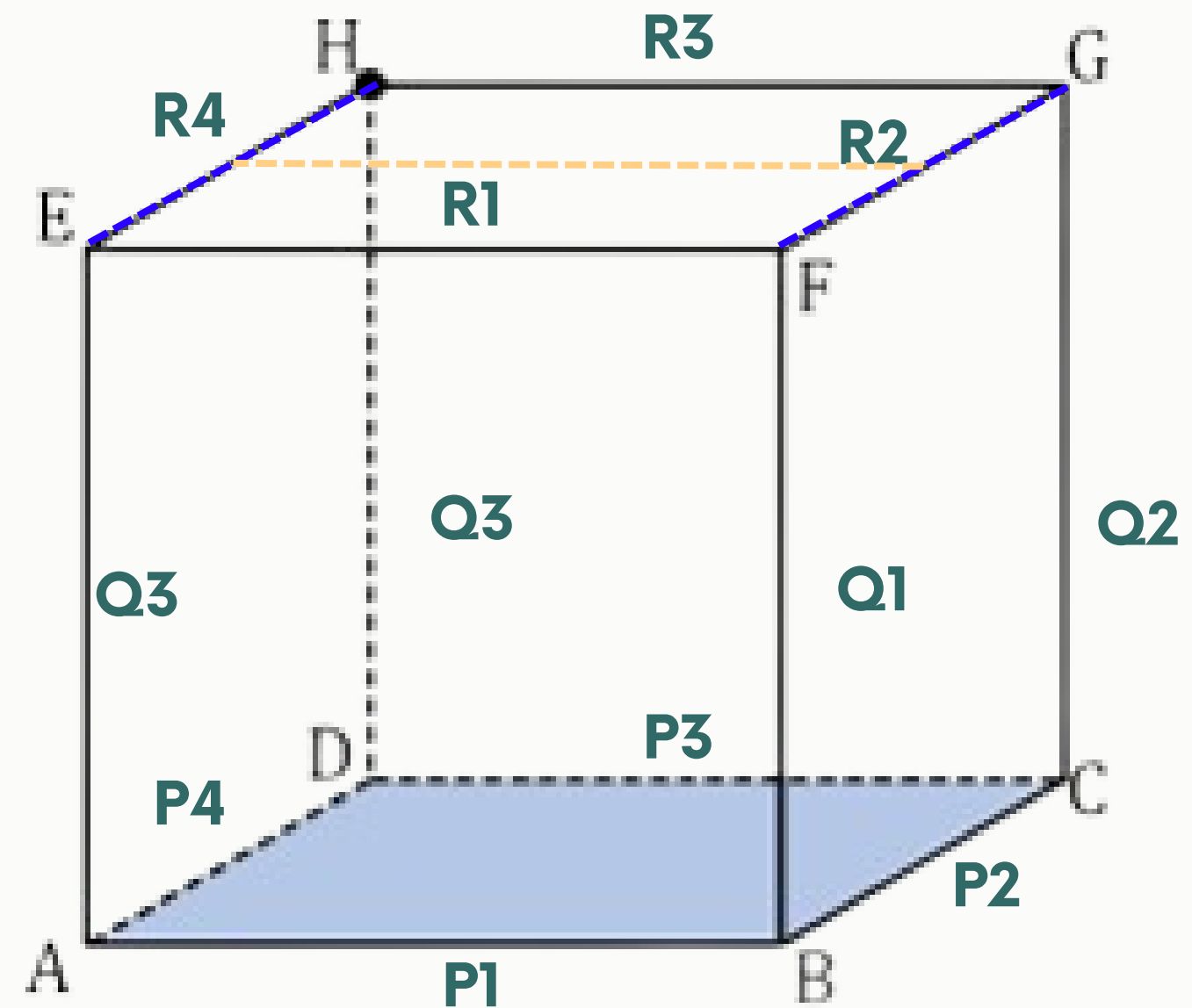
D

Tentukan panjang
proyeksi EH ke FG



EH // FG

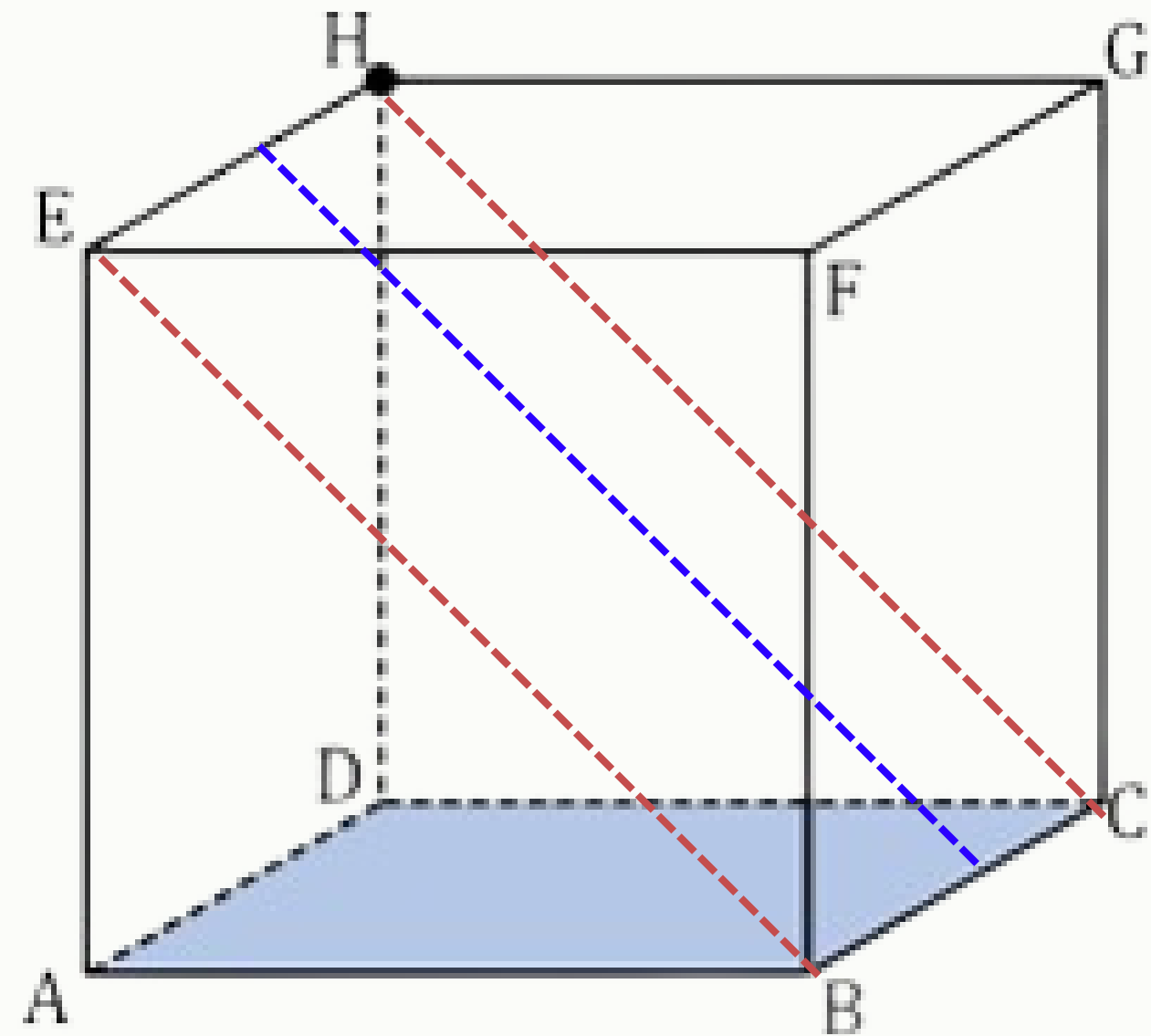
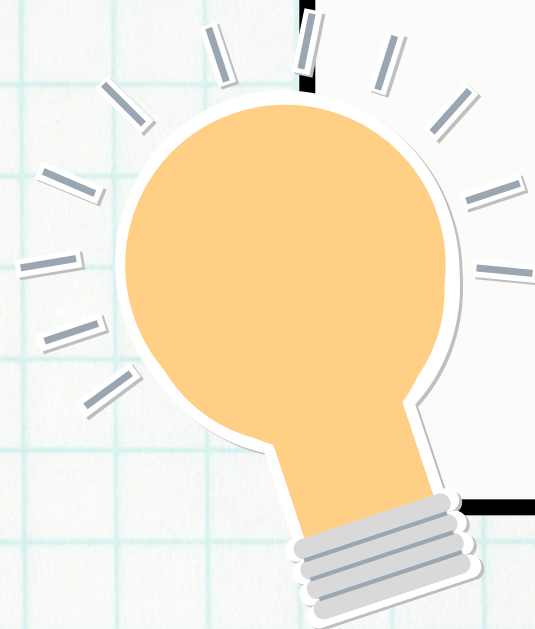
R4R2 // HG, sehingga jarak EH ke FG adalah panjang sisi kubus yaitu a



JARAK 2 GARIS SEJAJAR

E

**Tentukan panjang
proyeksi BC ke EH**



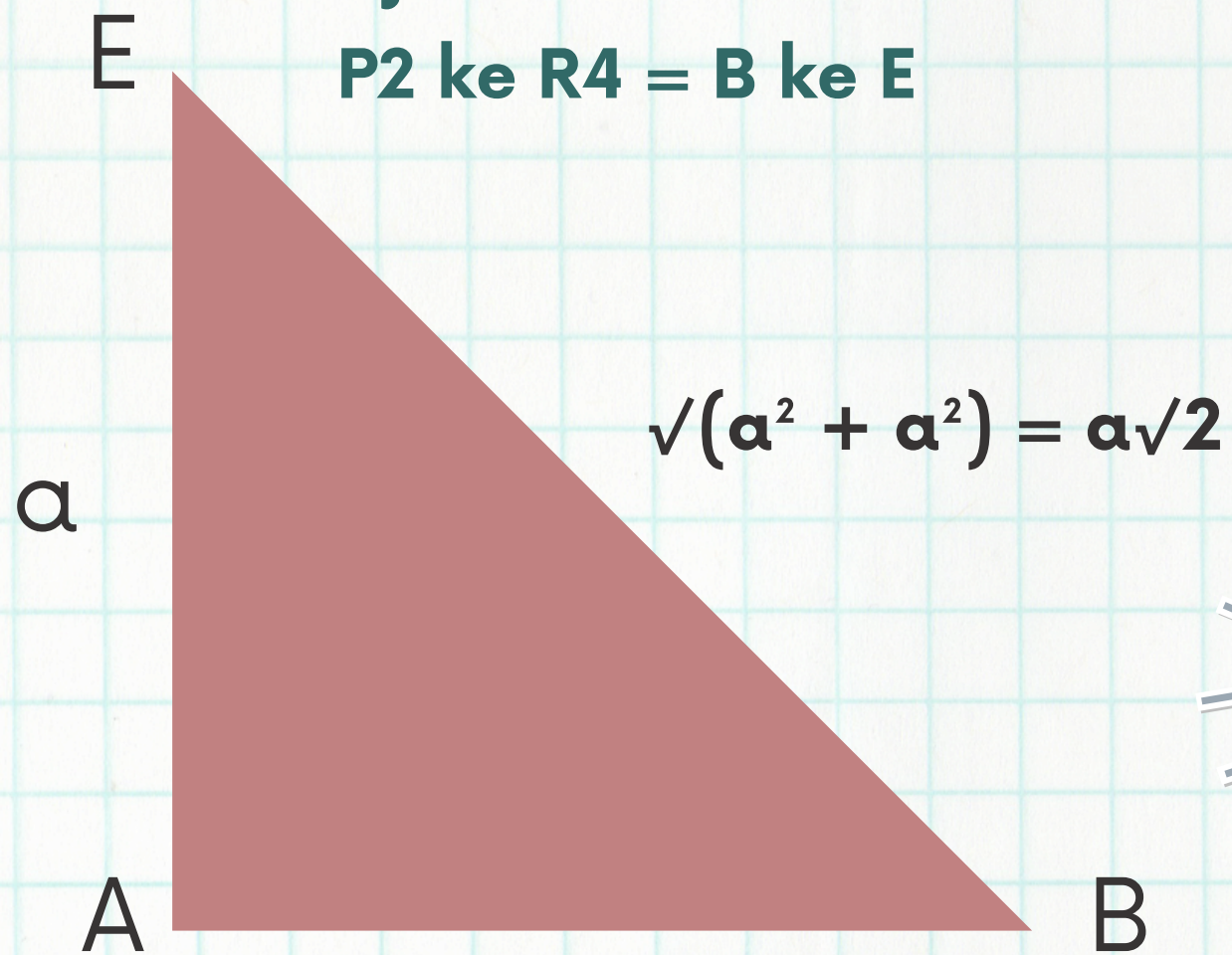
JAWABAN

E

$BC \parallel EH$

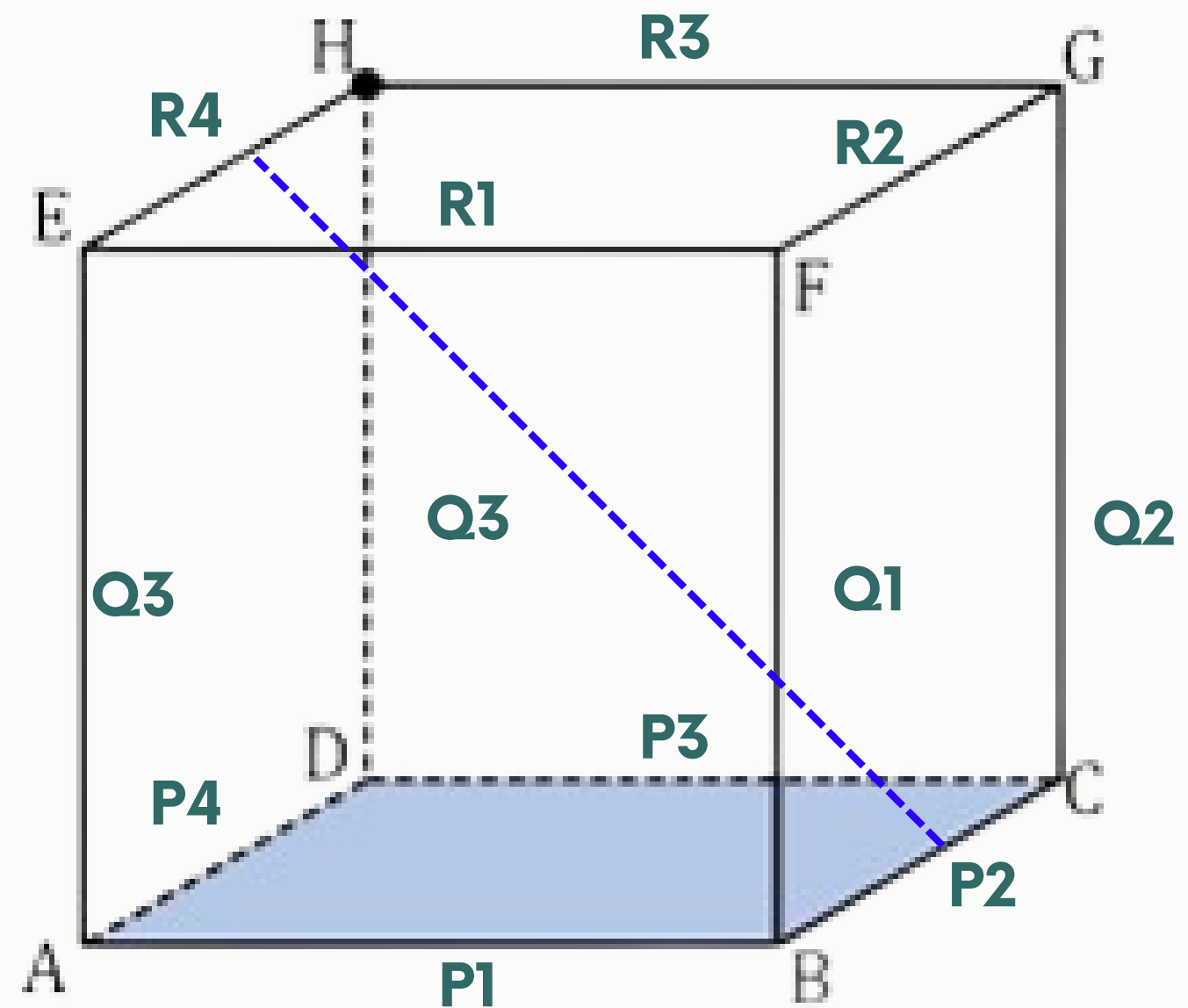
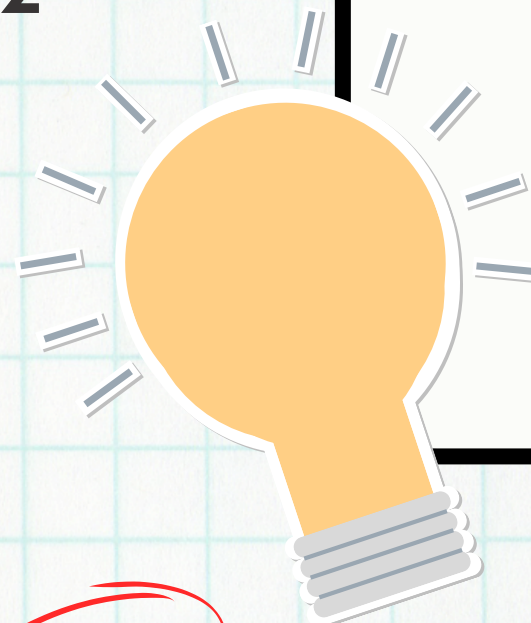
jarak proyeksi BC ke EH =
jarak P2 ke R4

P2 ke R4 = B ke E



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

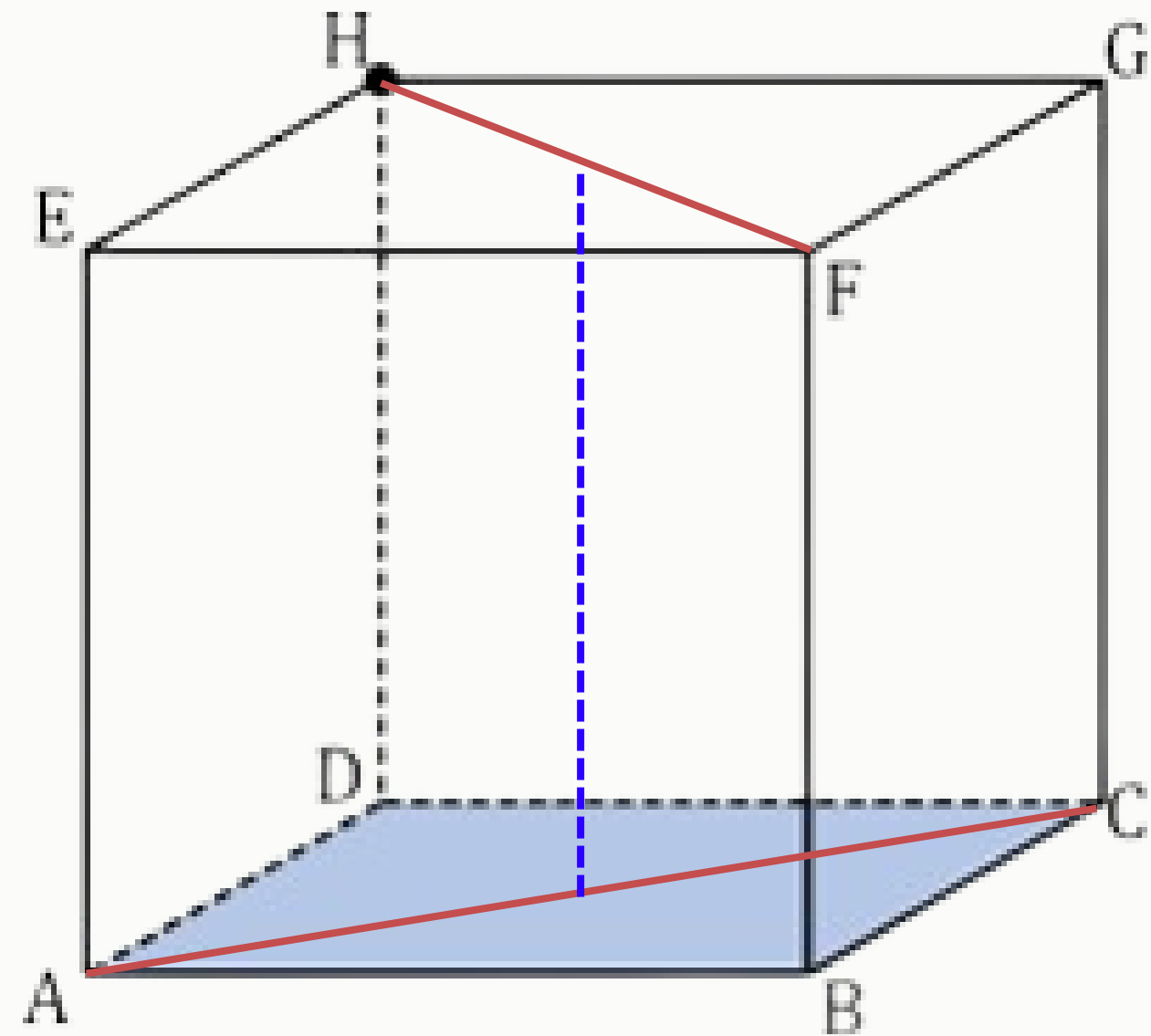
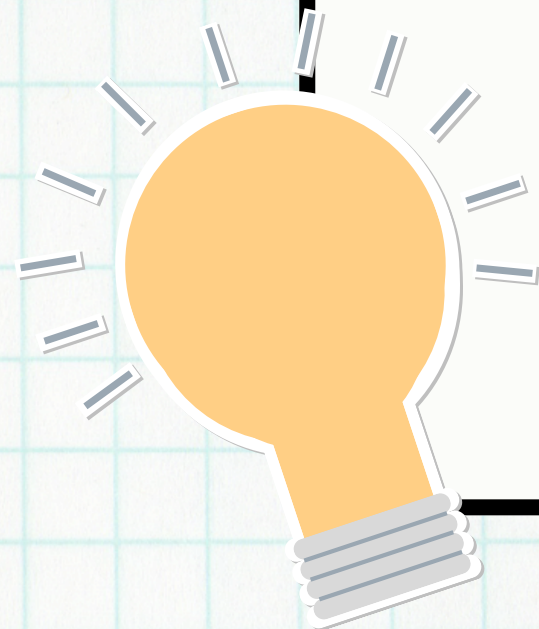
Jadi panjang E ke B = BC ke EH = $a\sqrt{2}$



JARAK 2 GARIS BERSILANGAN

F

**Tentukan panjang
proyeksi HF ke AC**

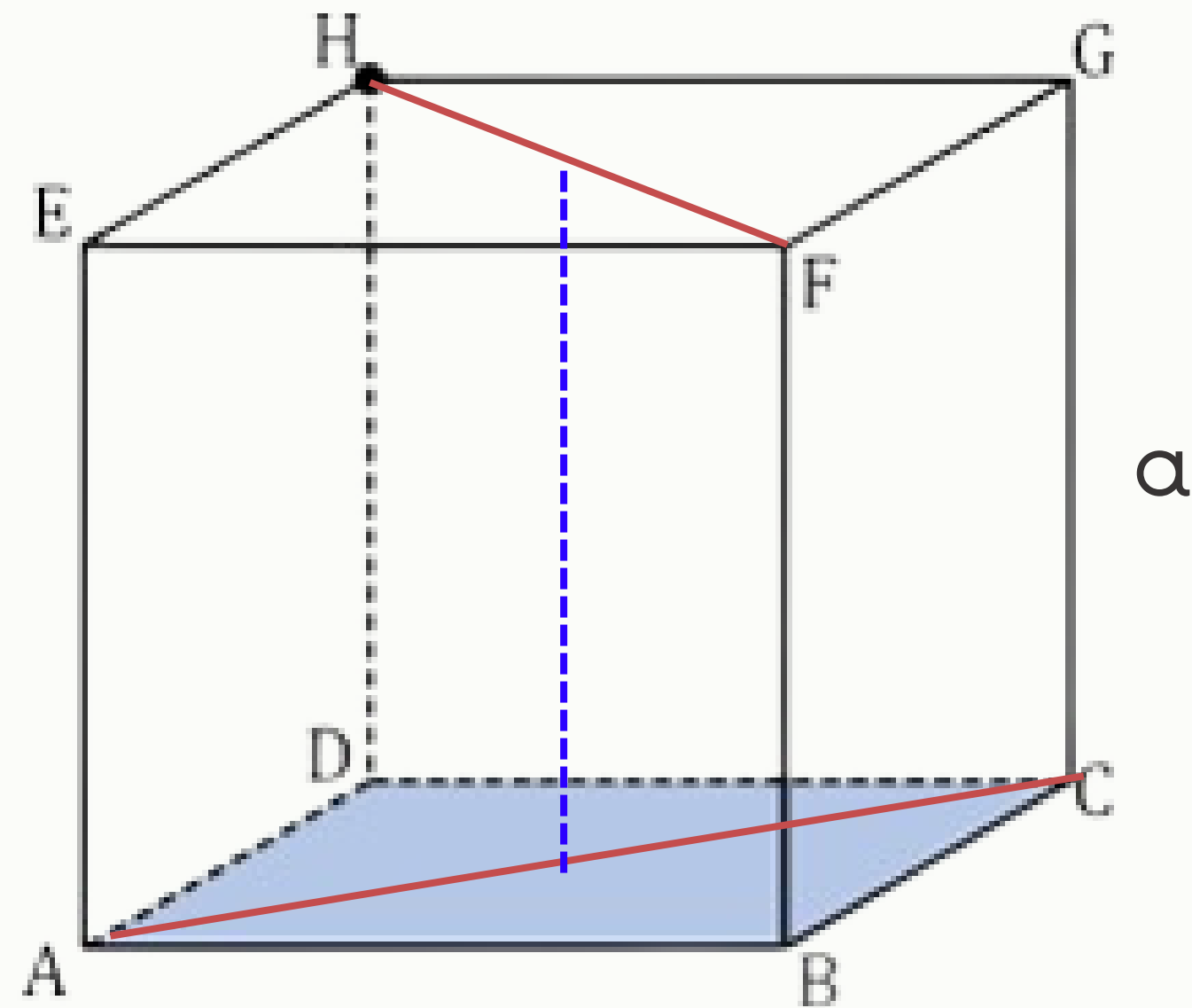
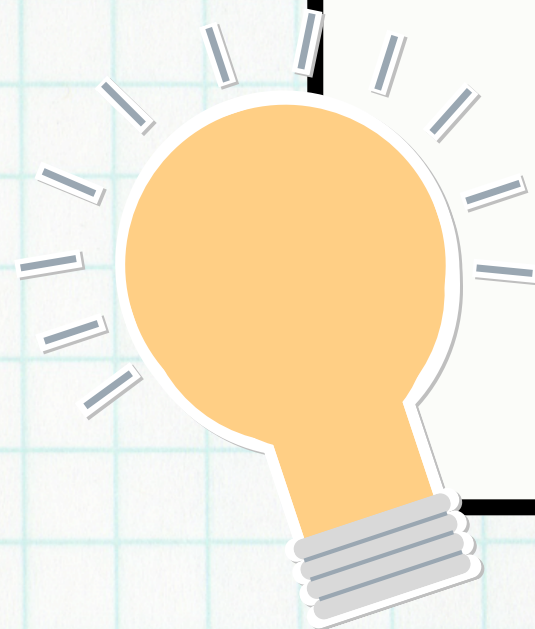


JAWABAN

F

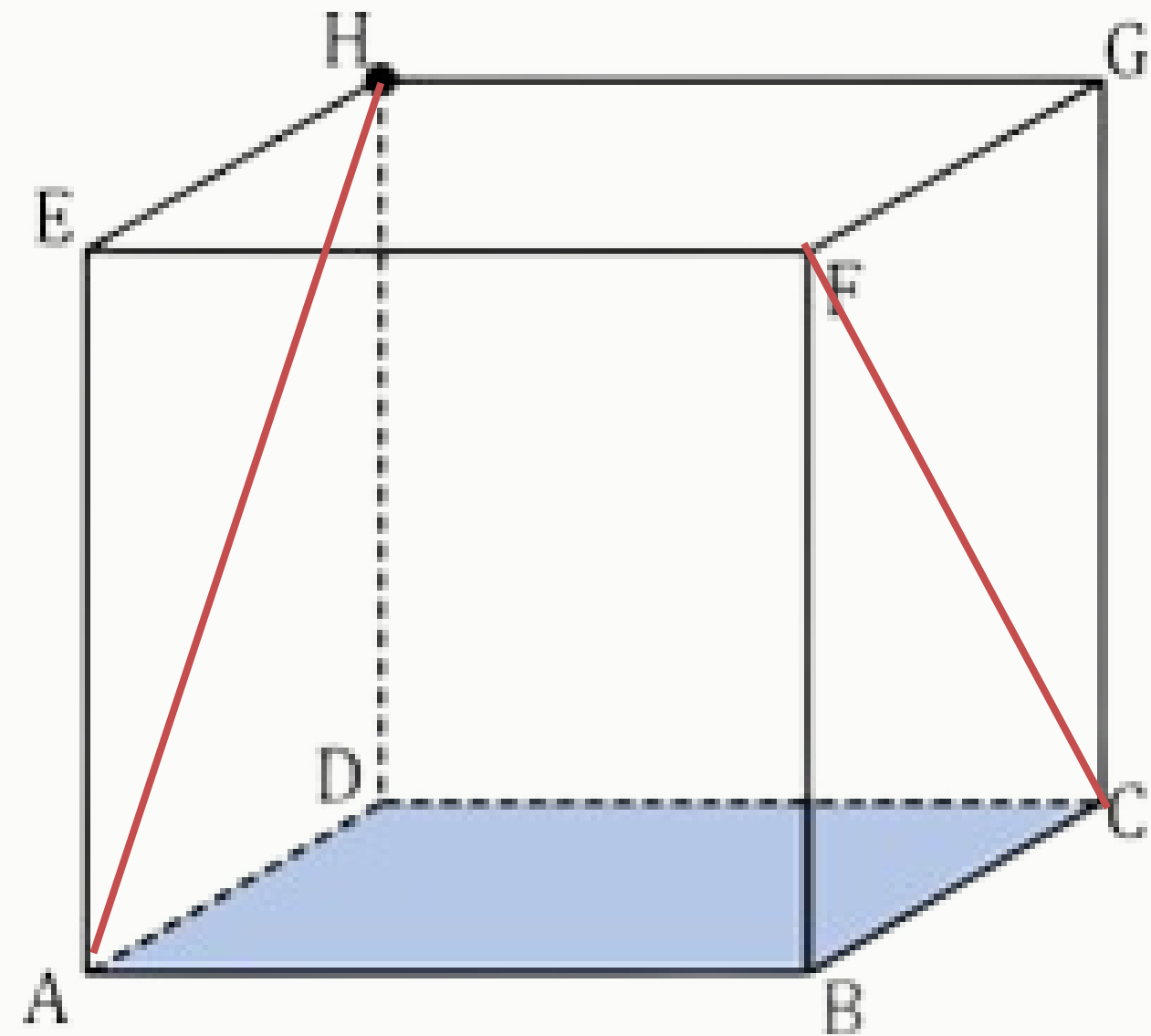
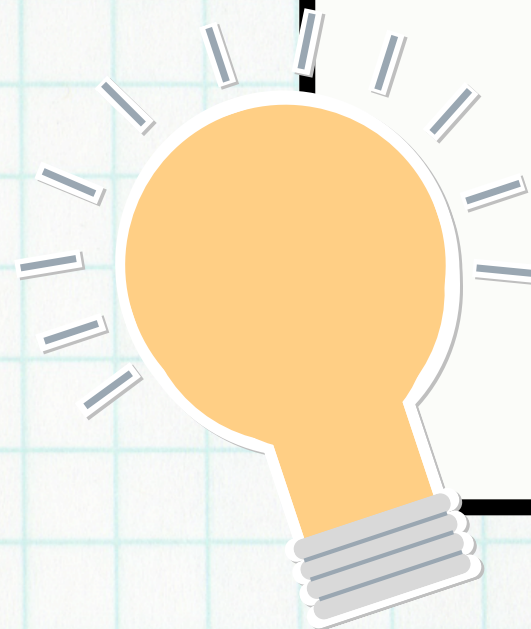
jarak AC ke HF = jarak S1 ke S6

$$S1 \text{ ke } S6 = G \text{ ke } C = a$$



PROYEKSI GARIS TERHADAP GARIS

G Tentukan proyeksi FC terhadap garis AH



JAWABAN

6

Bidang : ABGF

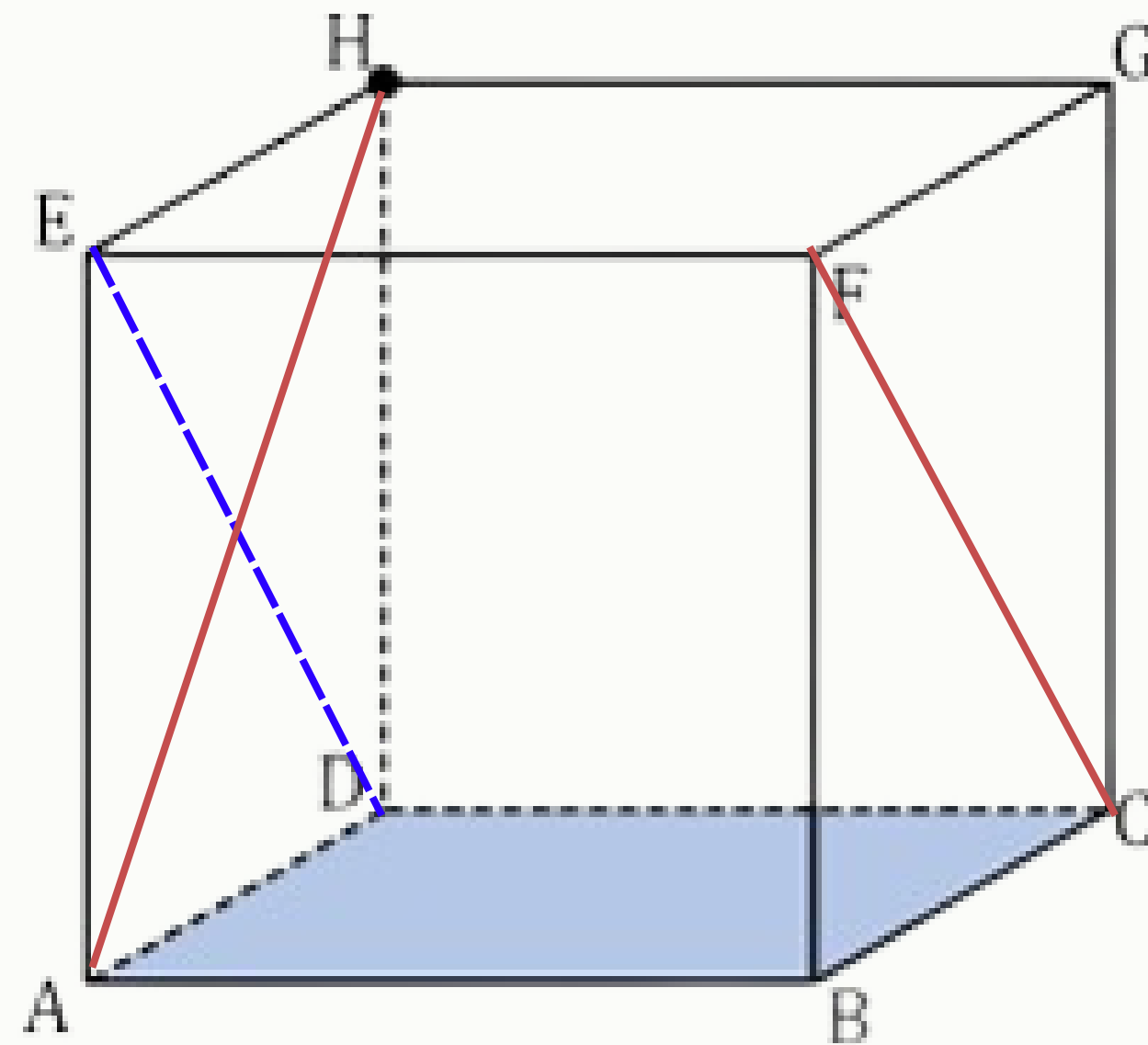
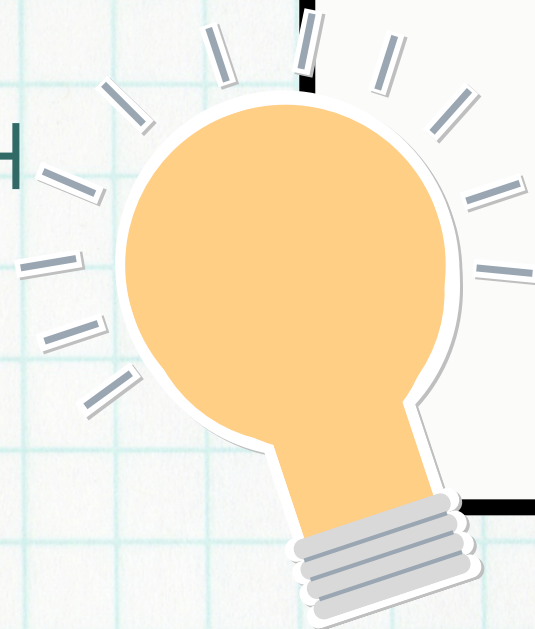
(i) $AB \perp BCFG$

$$\left. \begin{array}{l} AB \perp BF \\ AB \perp BC \end{array} \right\} \begin{array}{l} AB \perp BCFG \\ \text{maka } AB \perp FC \end{array}$$

(ii) $FC \perp ABGH$

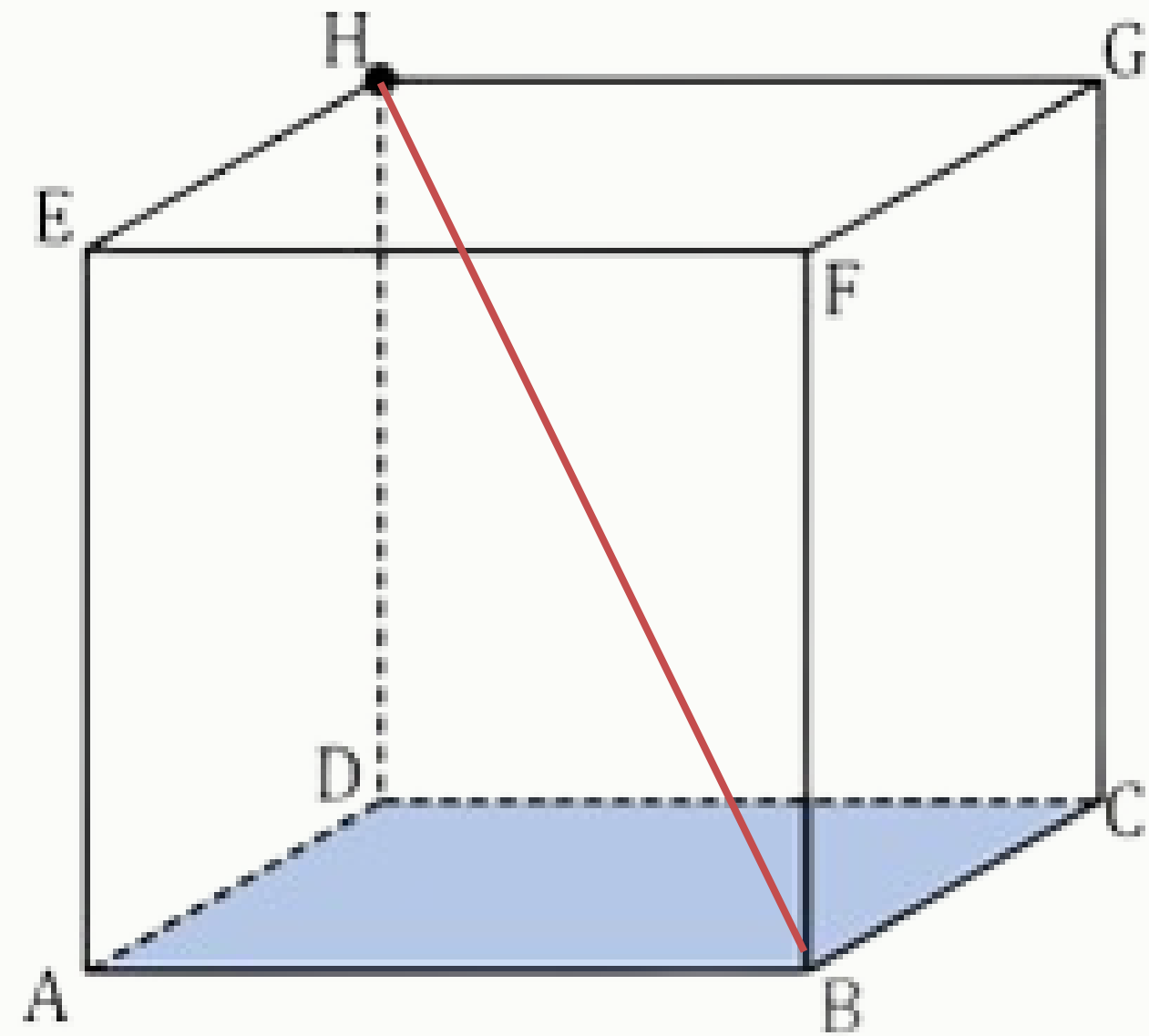
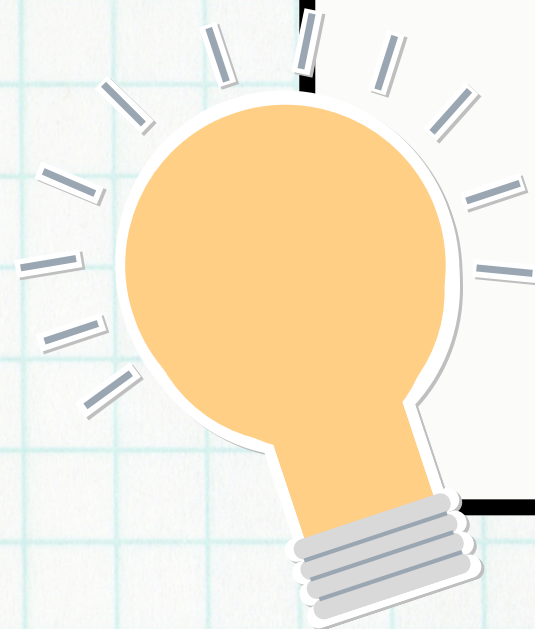
$$\left. \begin{array}{l} FC \perp AB \\ FC \perp BG \end{array} \right\} \begin{array}{l} FC \perp ABGH \\ \text{maka } FC \perp AH \end{array}$$

Karena $FC \perp AH$, maka hasil proyeksi dari FC terhadap bidang AH adalah S5



JARAK GARIS KE BIDANG

H Tentukan proyeksi HB
terhadap bidang
ABCD



JAWABAN

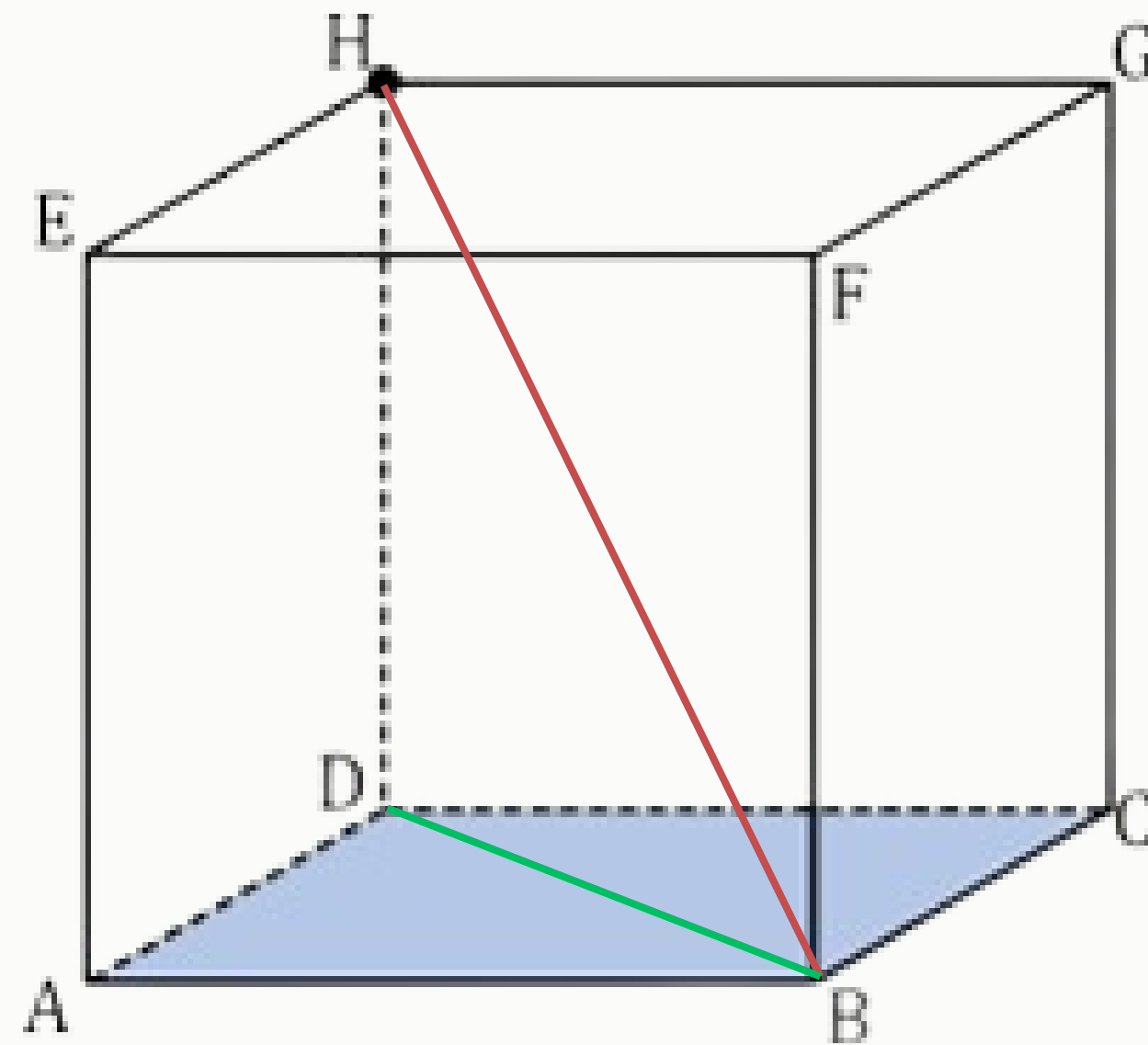
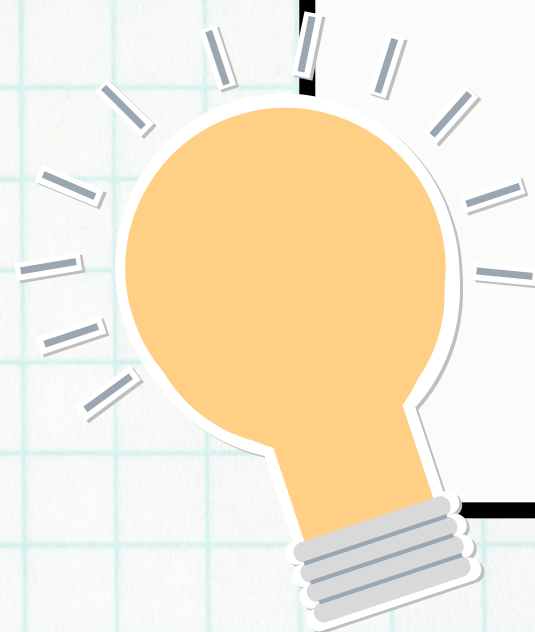
H

Bidang BDHF

$HD \perp ABCD$

$\left. \begin{array}{l} HD \perp DA \\ HD \perp DC \end{array} \right\} \begin{array}{l} HD \perp ABCD \\ \text{maka } HD \perp BD \end{array}$

Karena $BD \perp HD$,
maka hasil proyeksi
dari HB terhadap
bidang ABCD
adalah DB





THANK YOU

