

Sections d'un cube par un plan

G. Marris

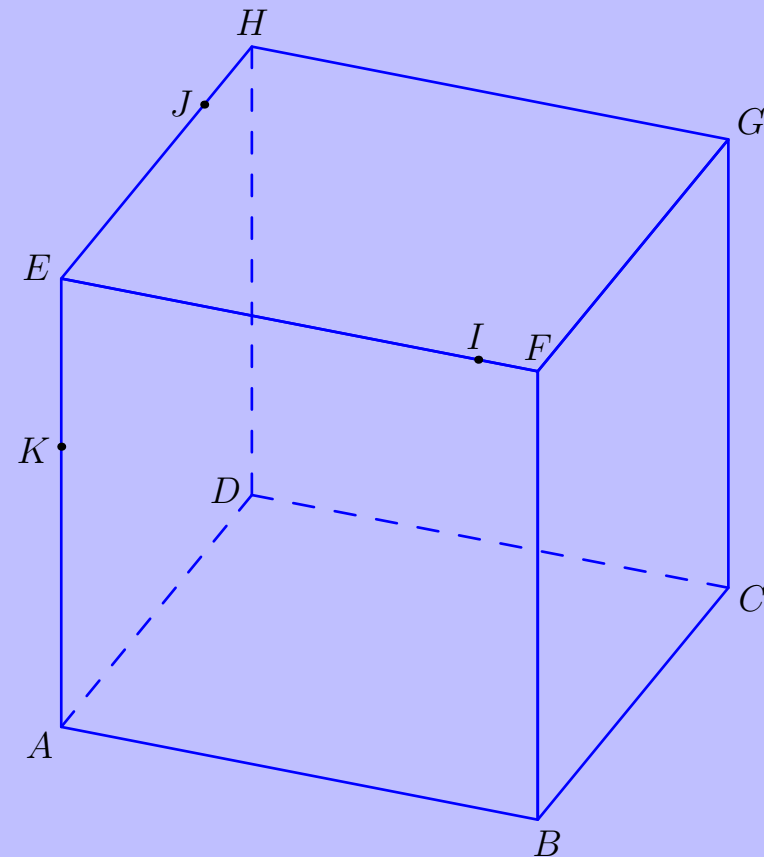
Lycée du Noordover

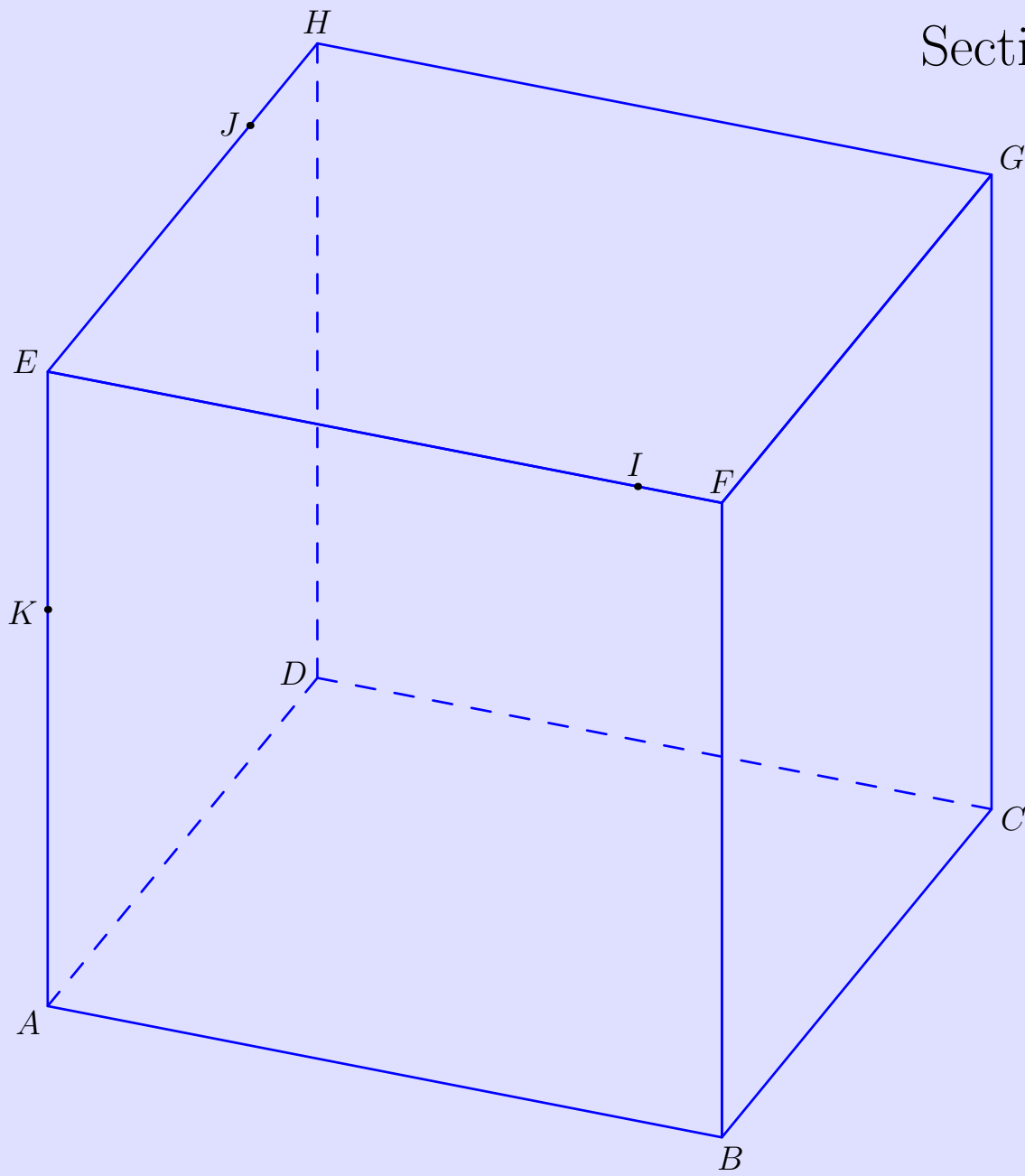
10 mars 2008

<http://www.marris.org/asymptote>

Section 1 du cube $ABCDEFGH$ (de côté 8) par le plan (IJK) tel que :

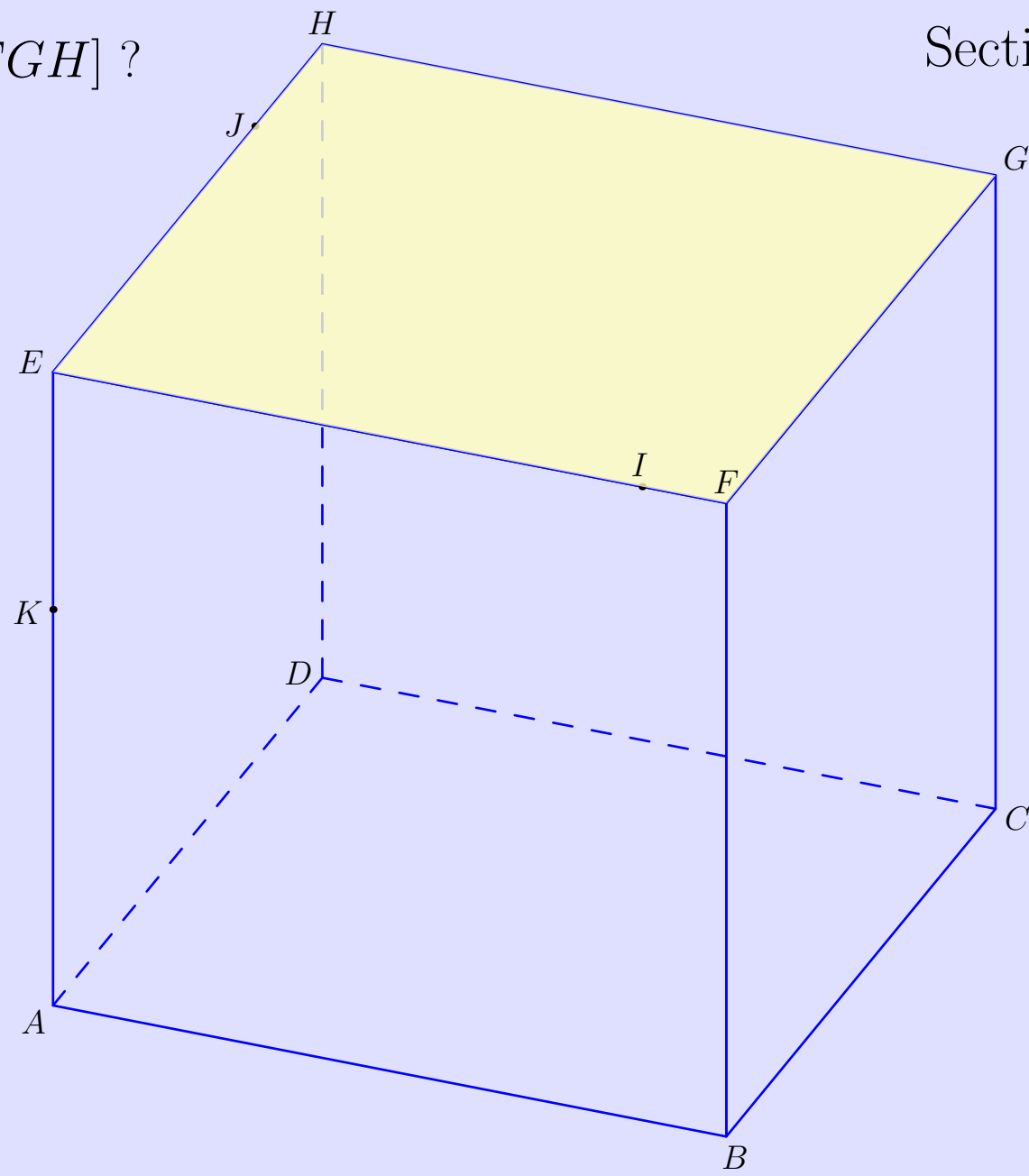
- I est le point de $[EF]$, tel que $IF = 1$
- J est le point de $[EH]$, tel que $JH = 2$
- K est le point de $[EA]$, tel que $EK = 3$

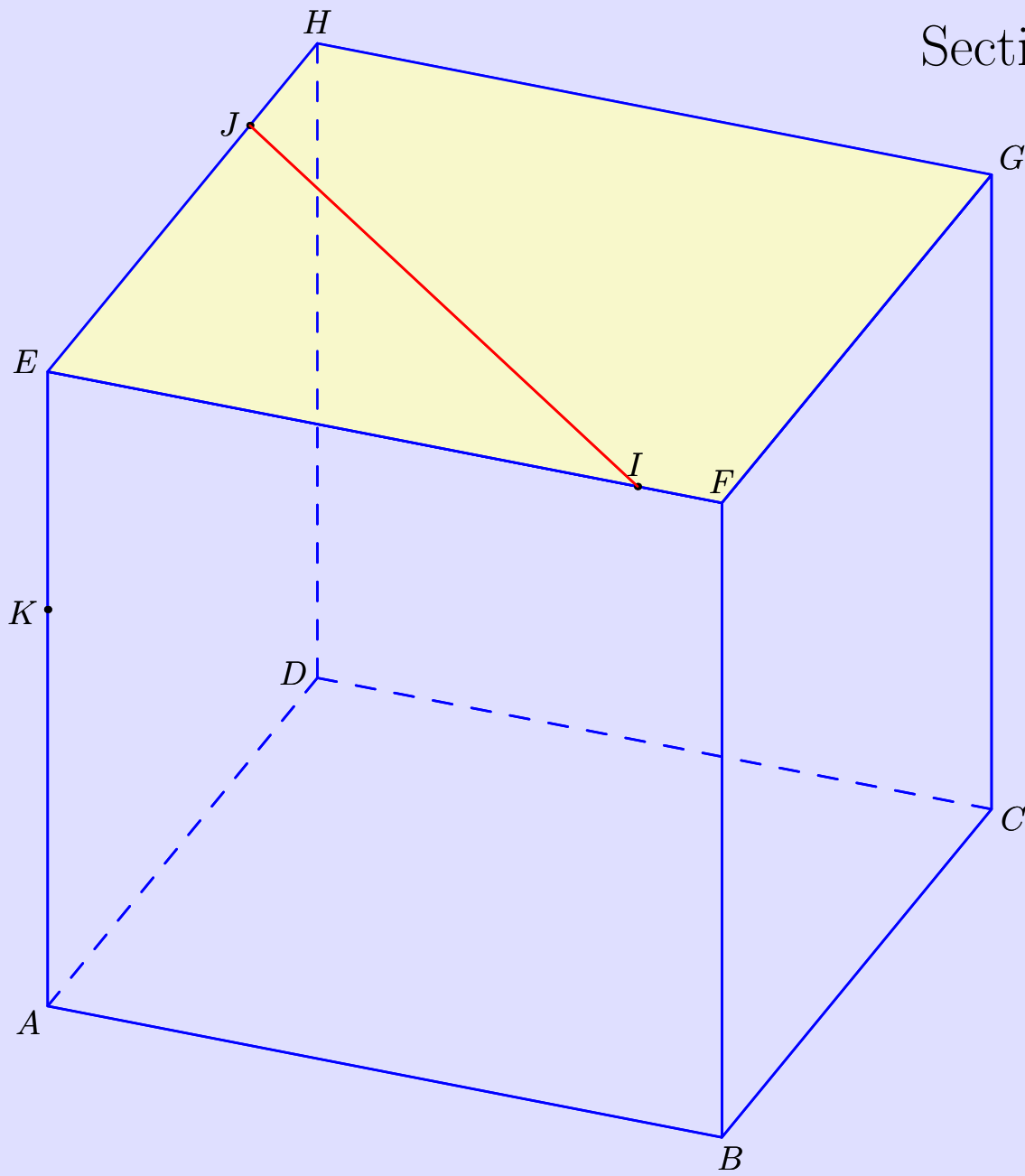


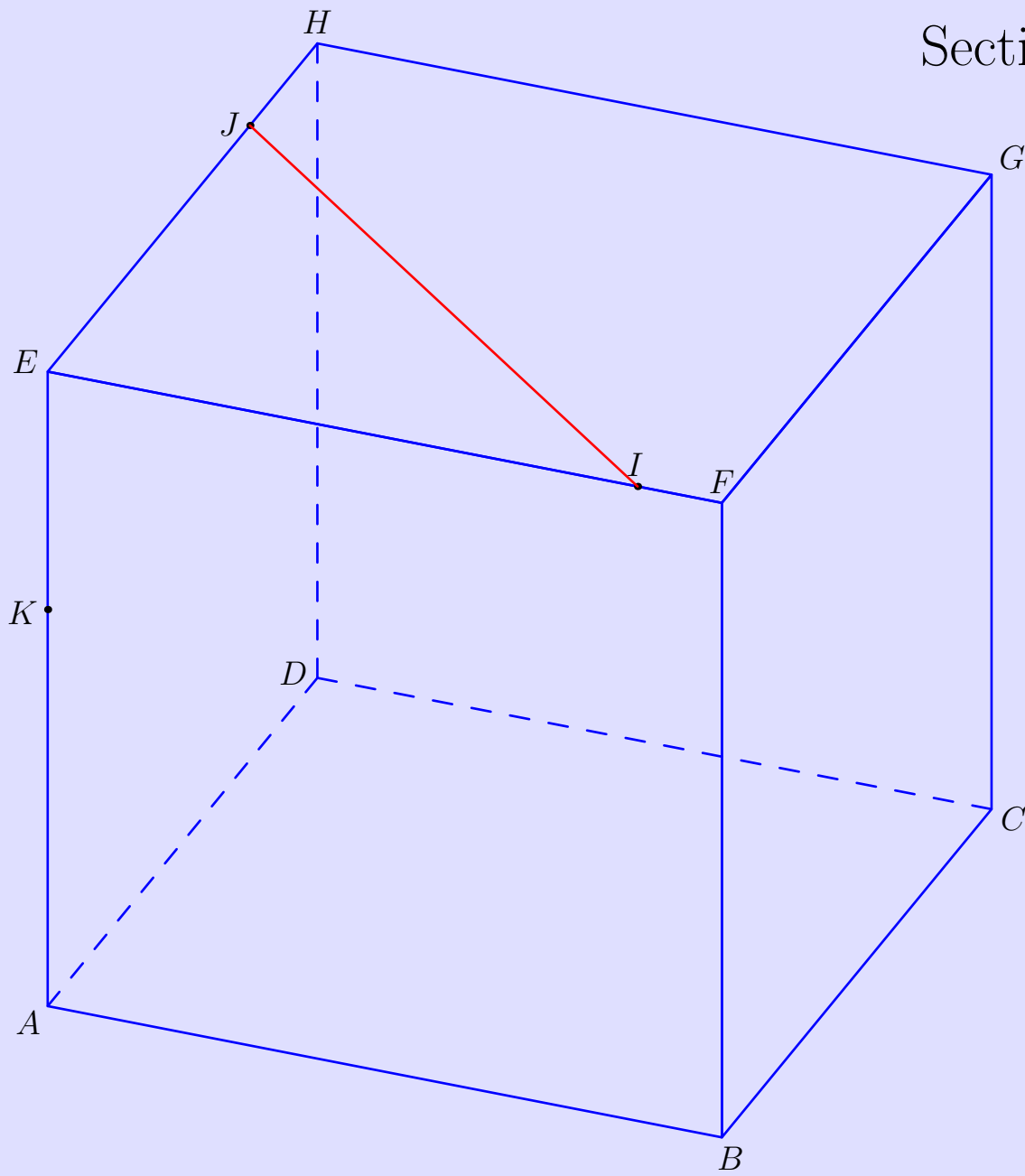


Trace laissée sur la face $[EFGH]$?

Section n°1

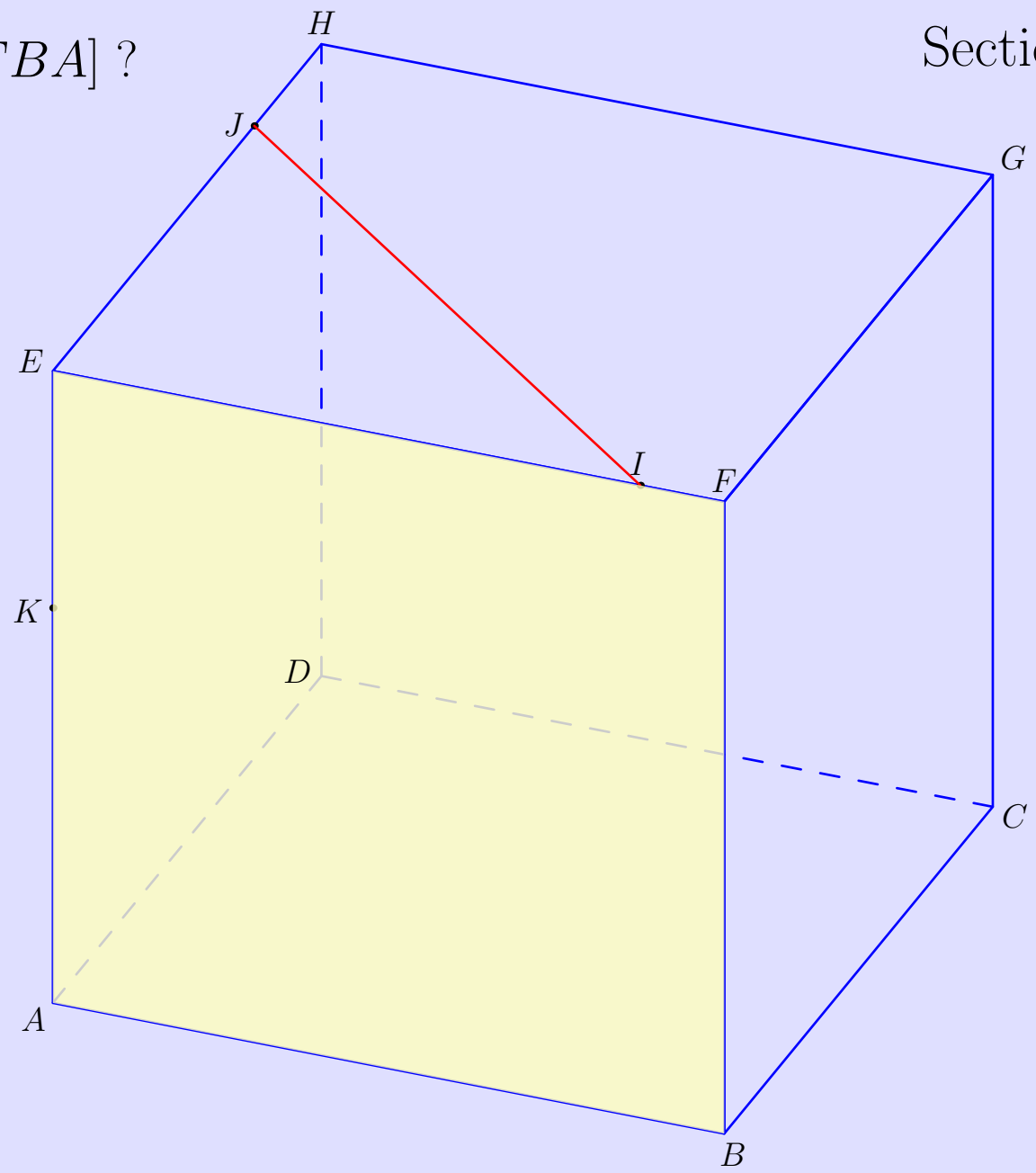


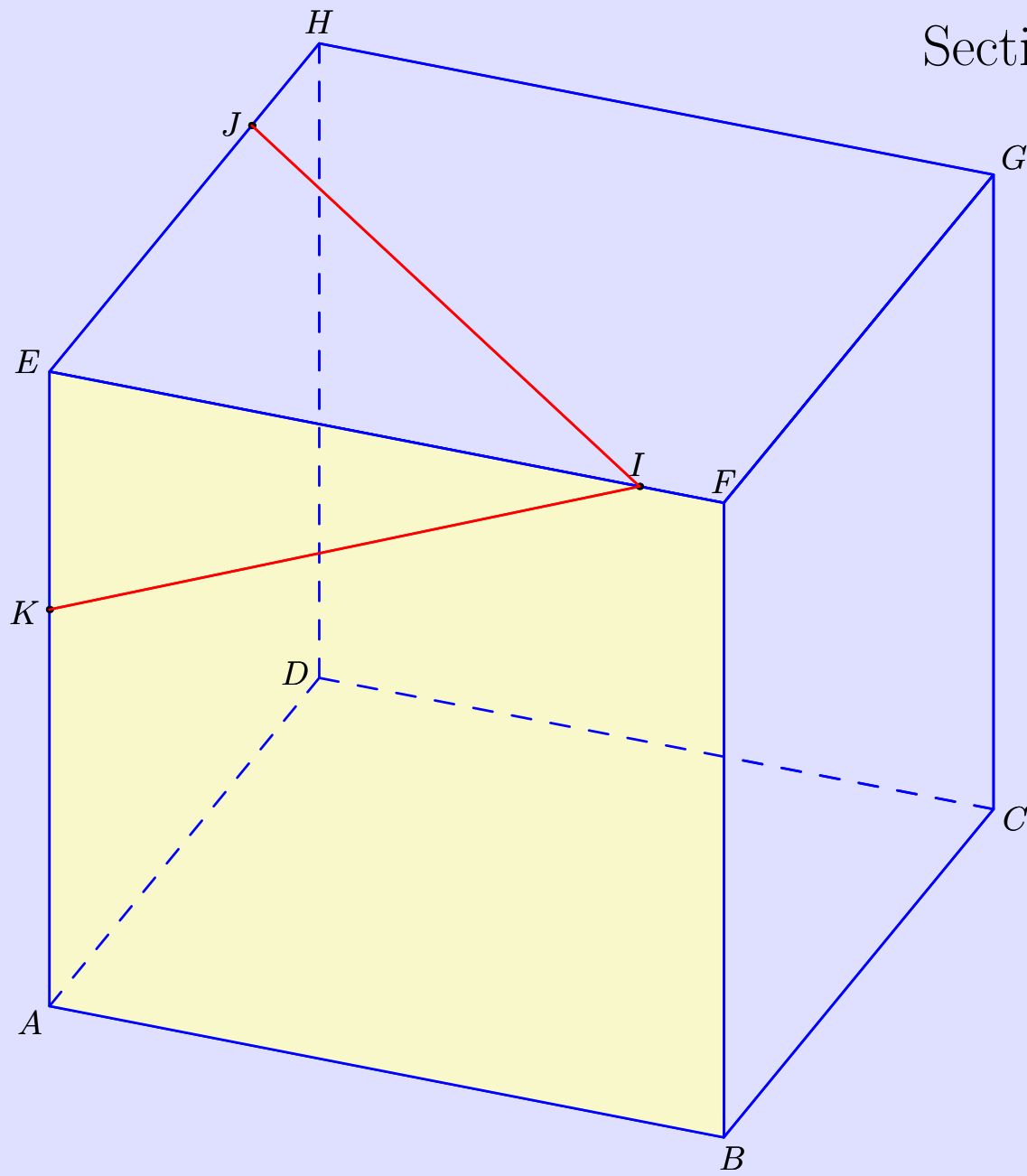


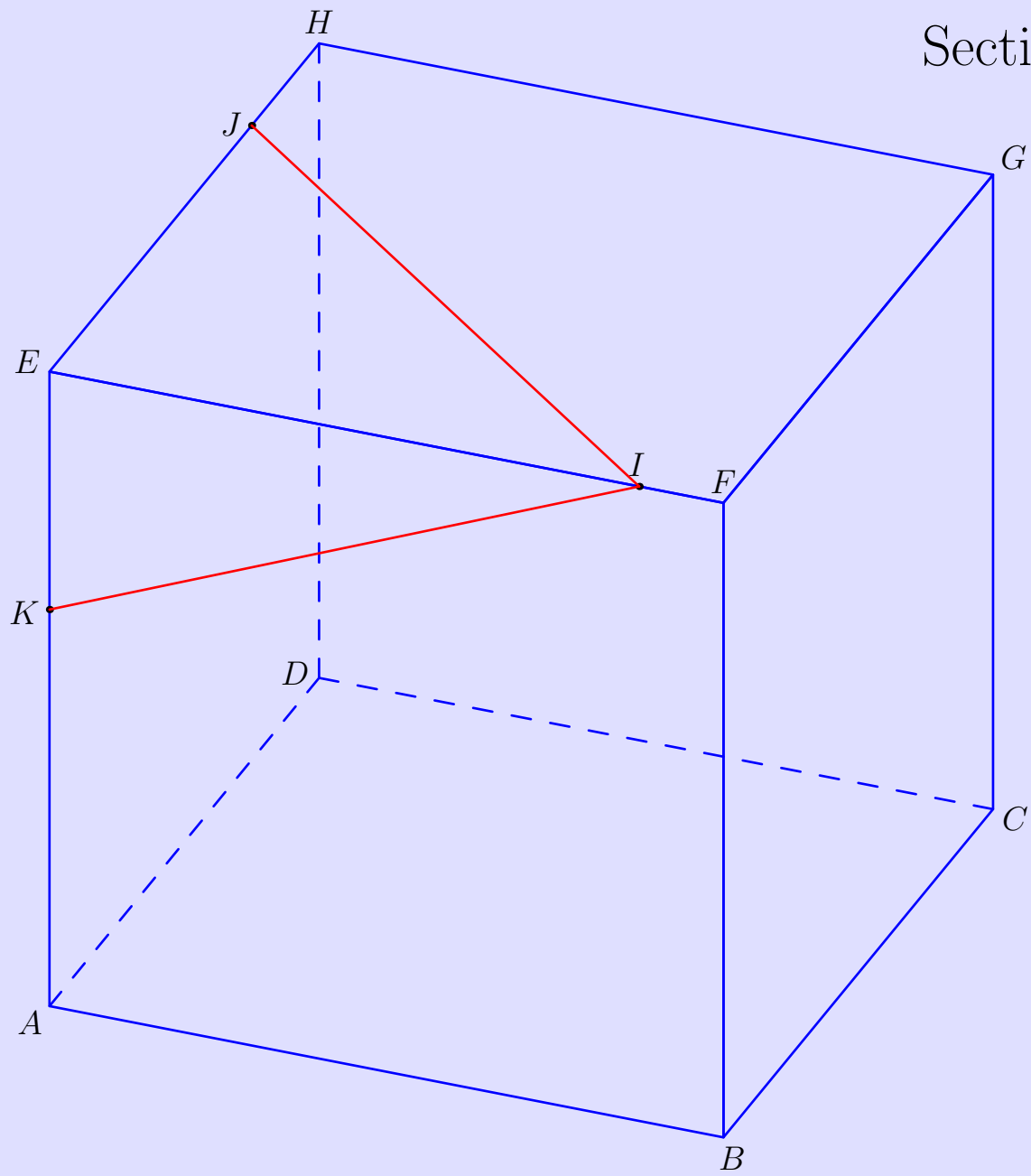


Trace laissée sur la face $[EFBA]$?

Section n°1

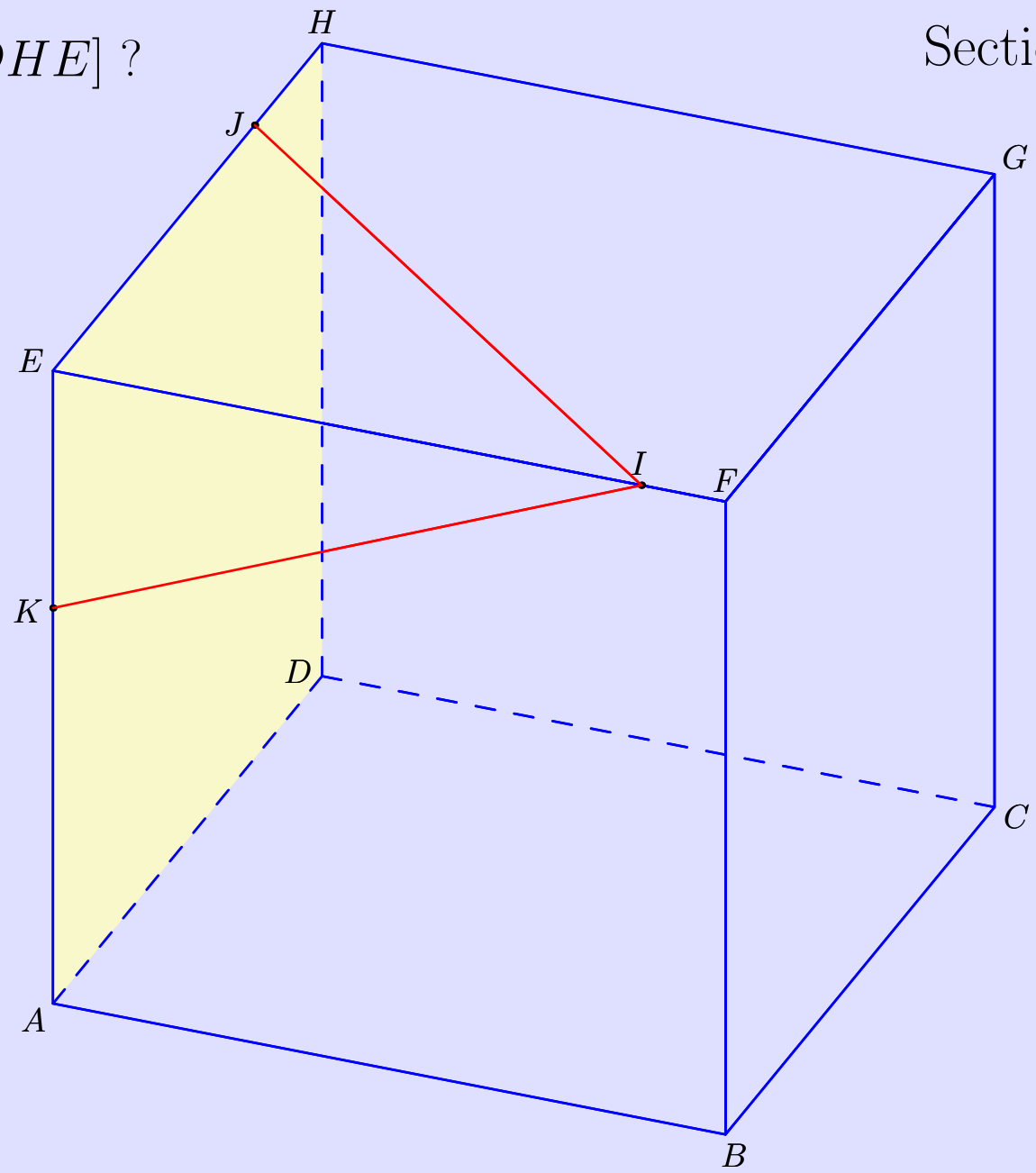


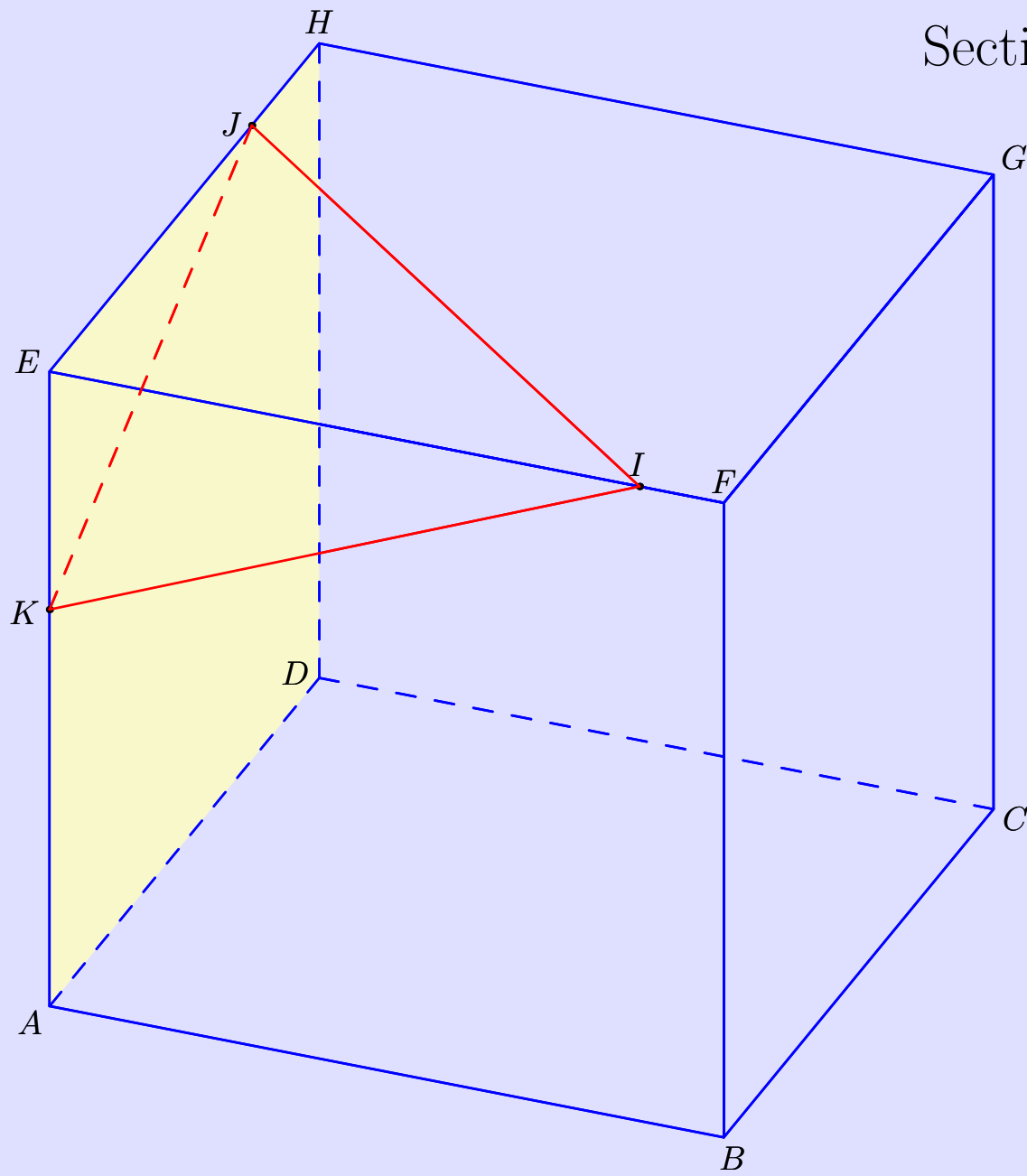




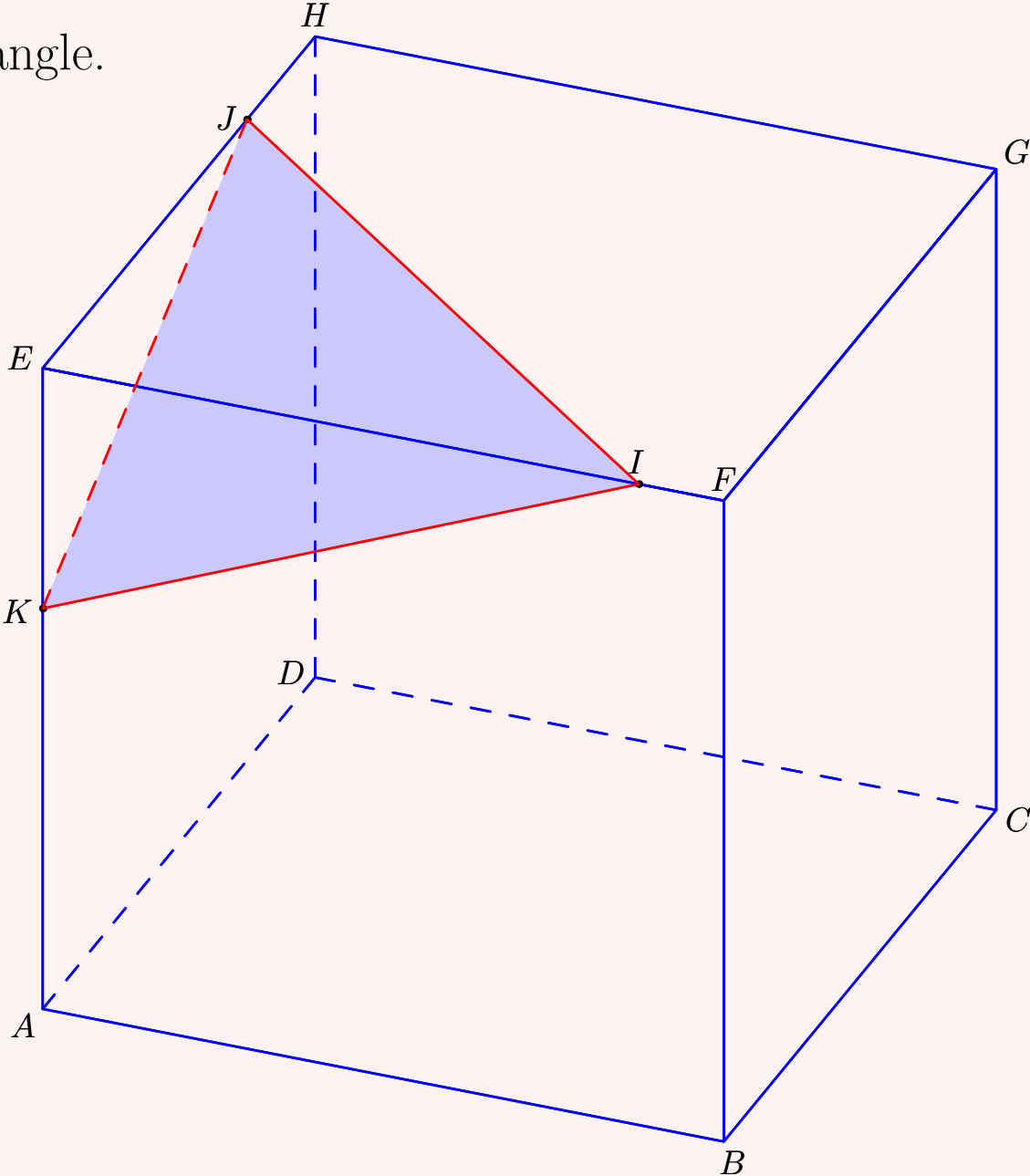
Trace laissée sur la face $[ADHE]$?

Section n°1



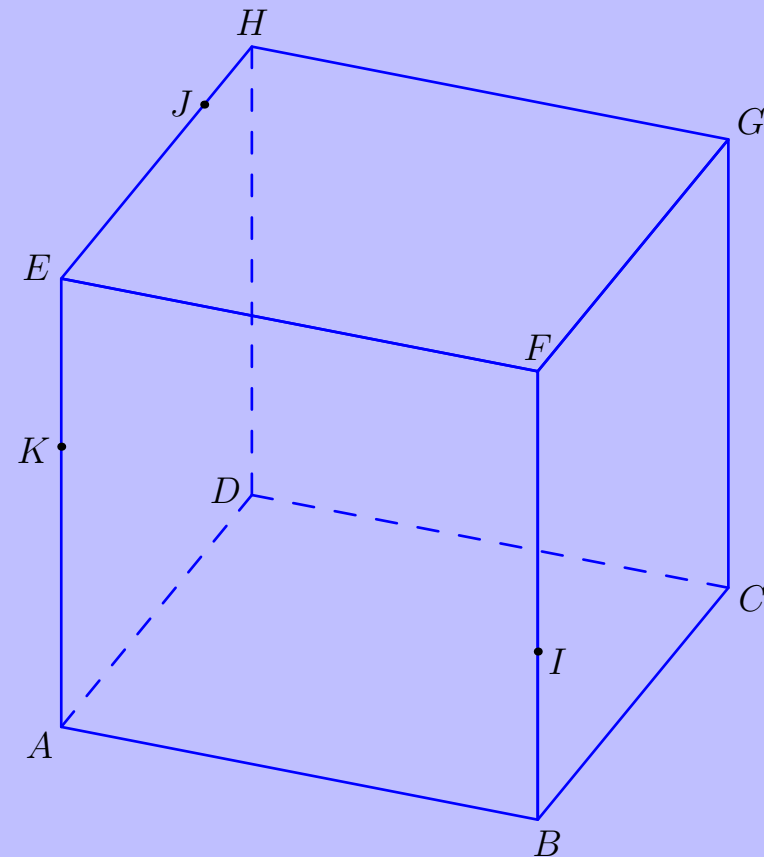


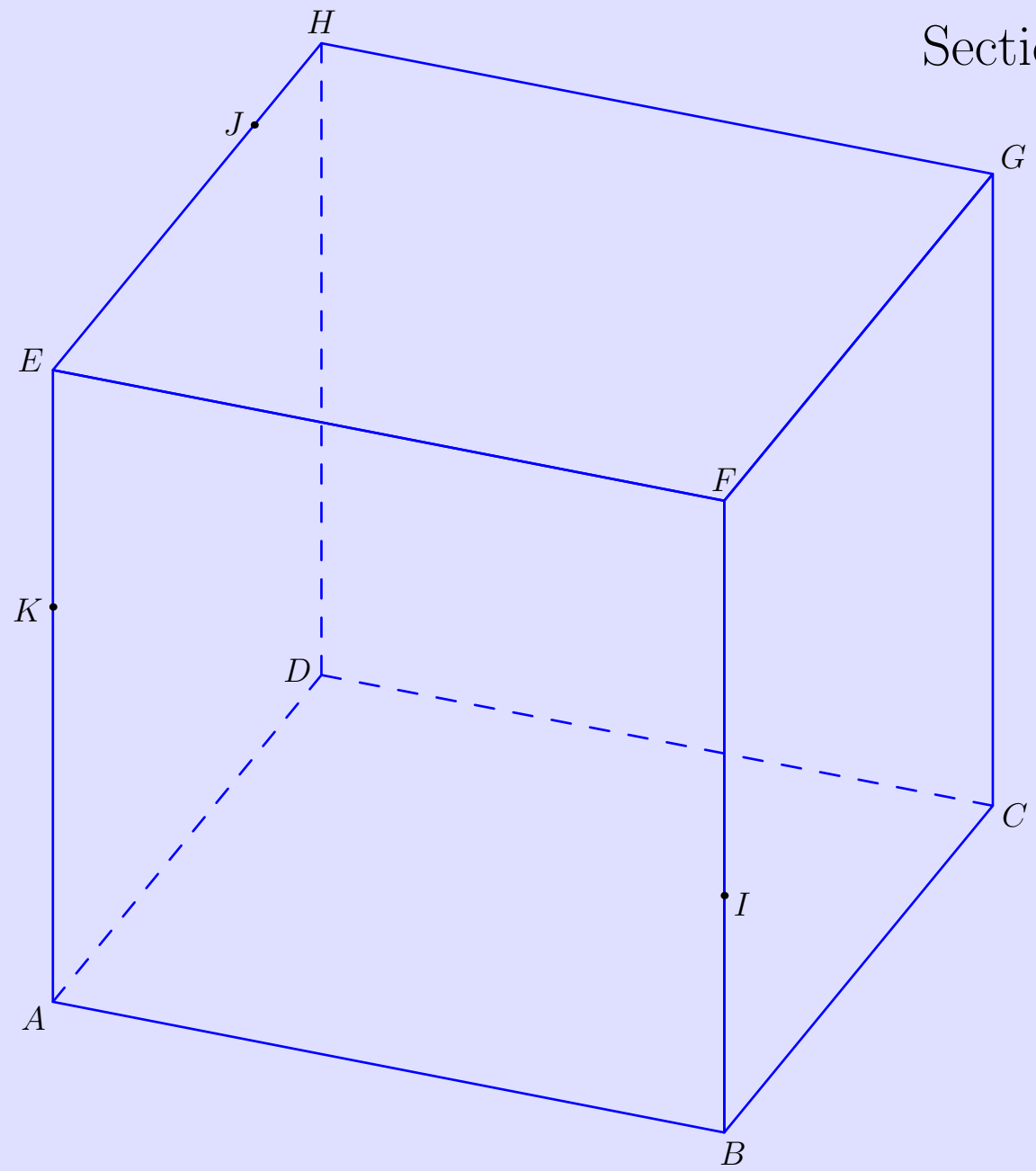
C'était la section 1 : un triangle.



Section 2 du cube $ABCDEFGH$
(de côté 8) par le plan (IJK) tel que :

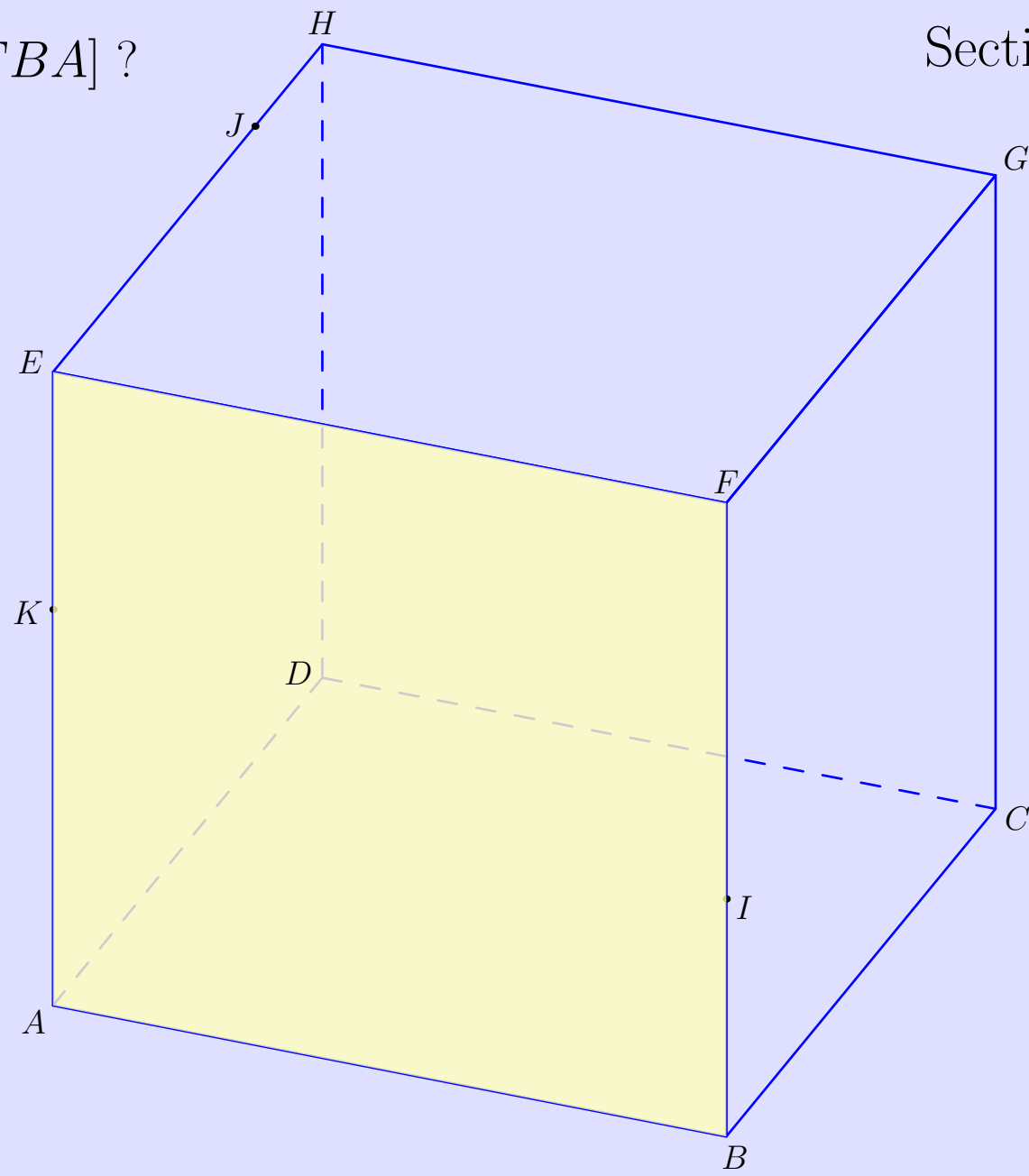
- I est le point de $[BF]$, tel que $BI = 3$
- J est le point de $[EH]$, tel que $JH = 2$
- K est le point de $[EA]$, tel que $EK = 3$

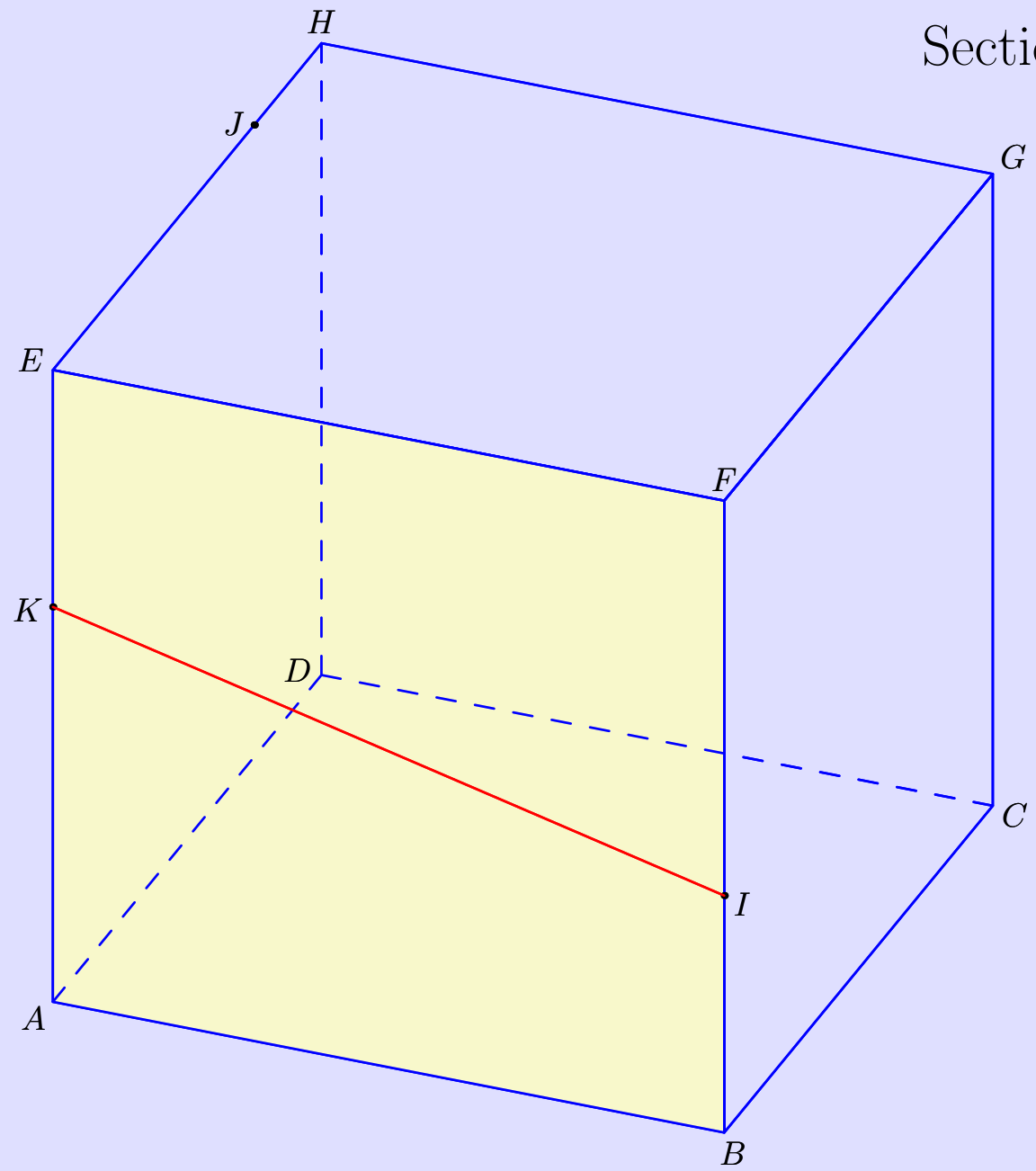


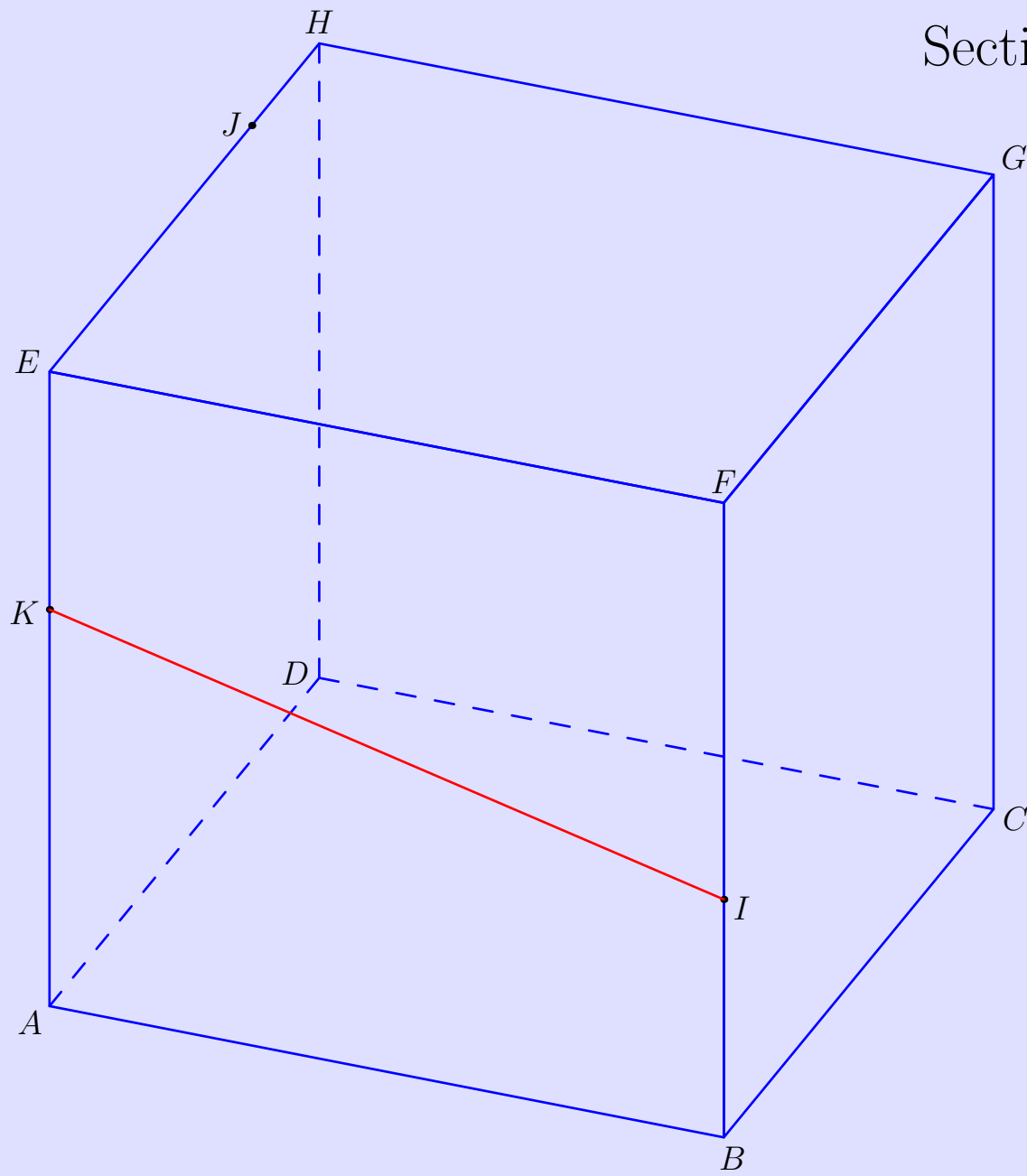


Trace laissée sur la face $[EFBA]$?

Section n°2

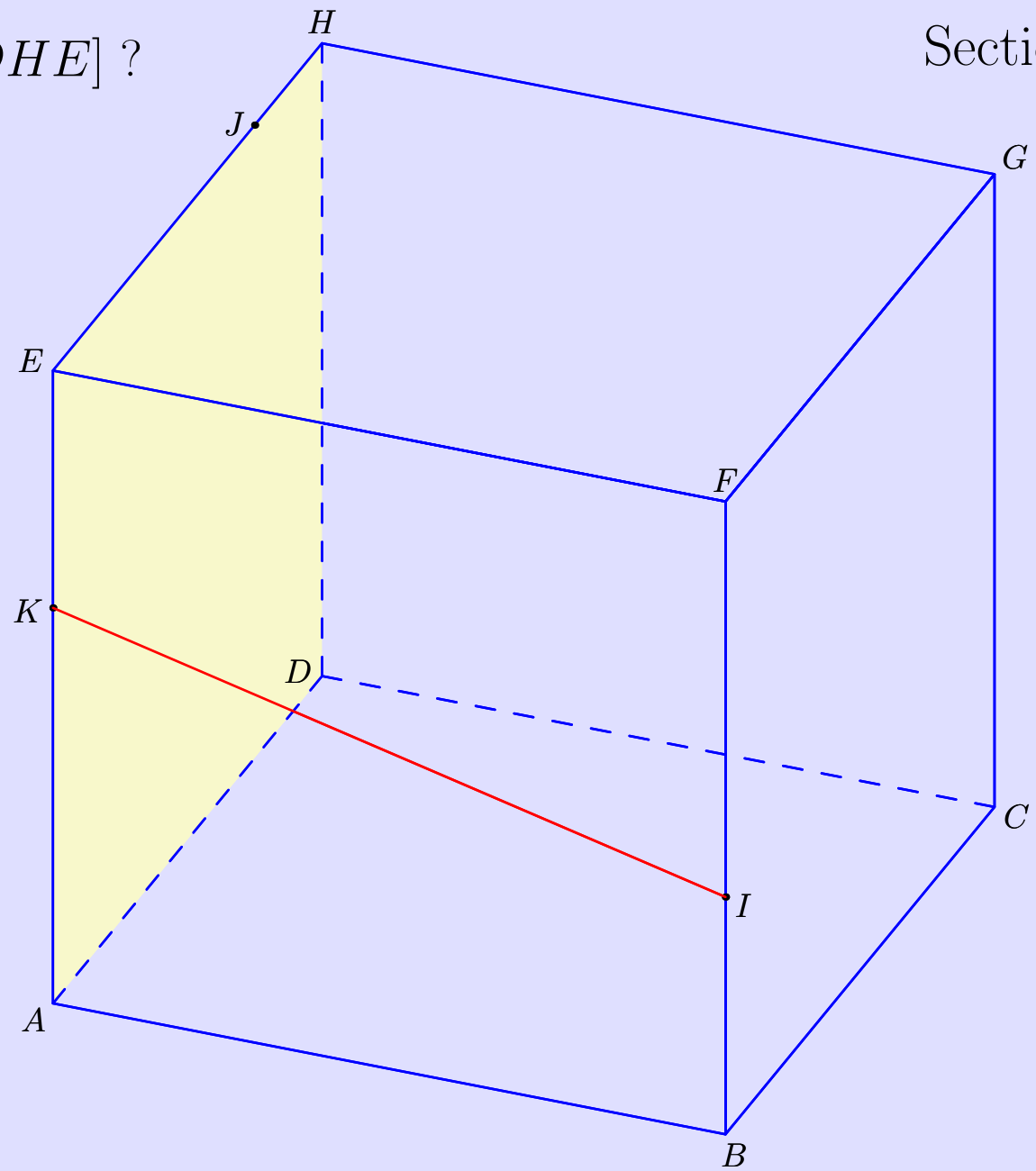


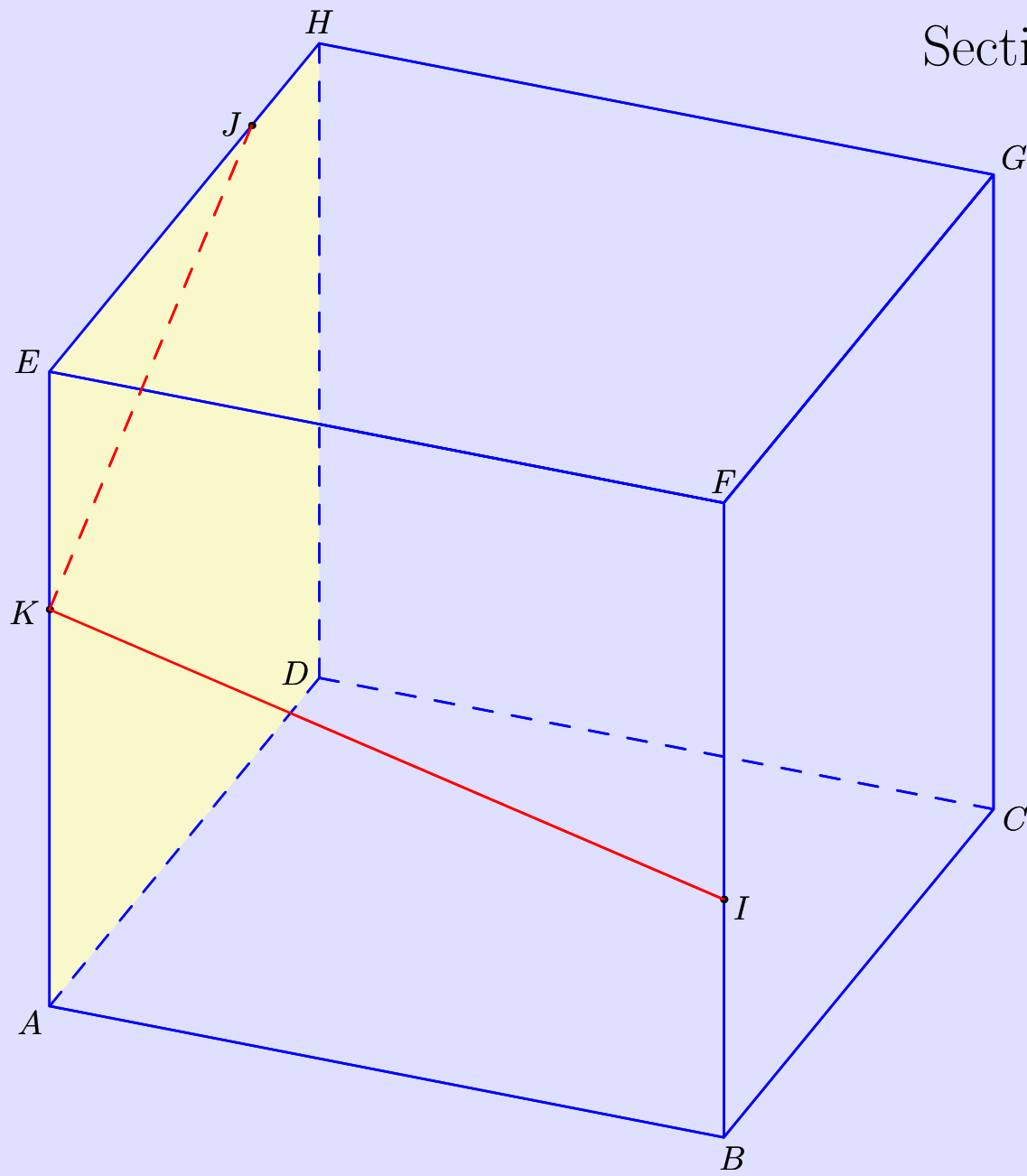


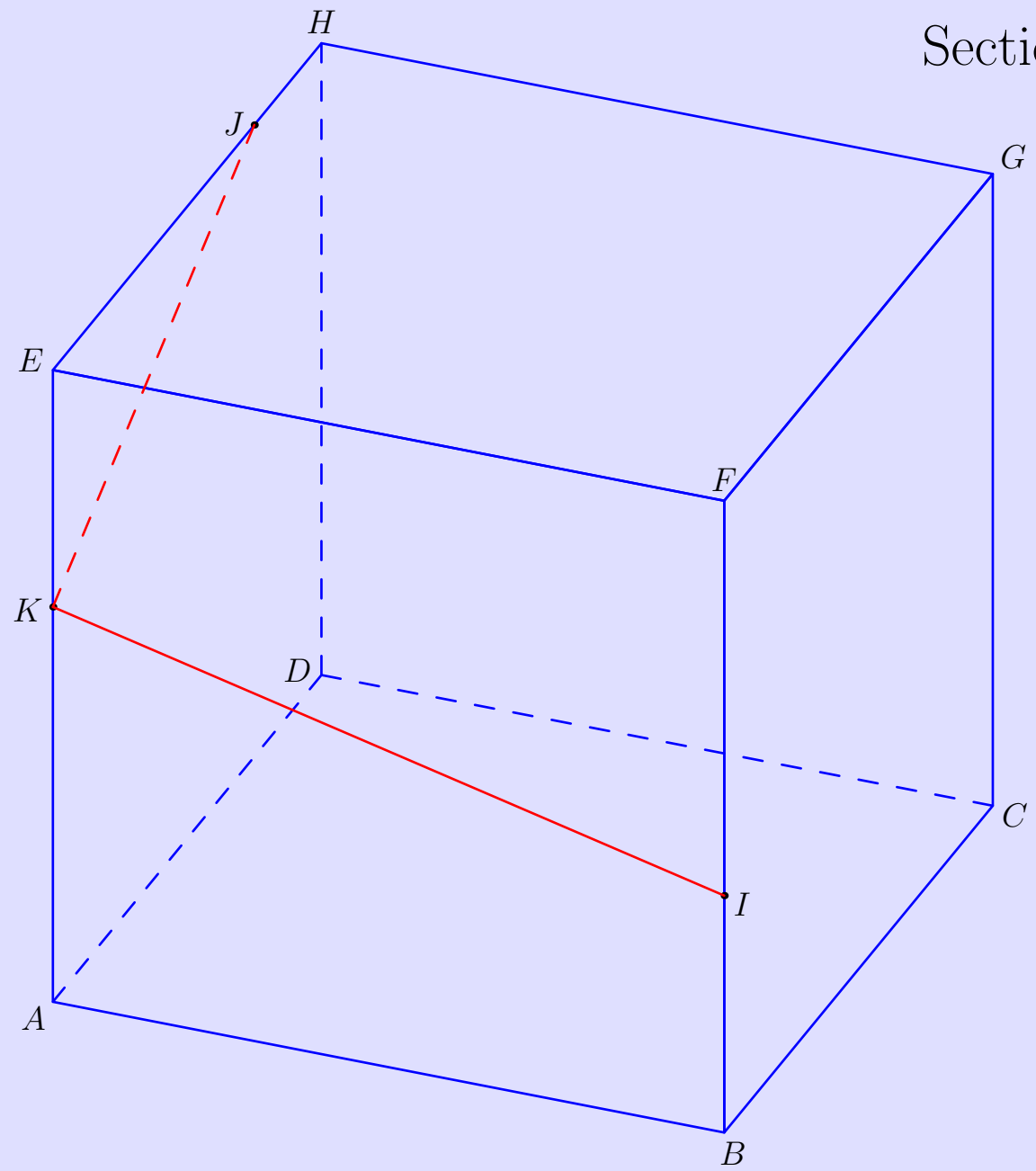


Trace laissée sur la face $[ADHE]$?

Section n°2

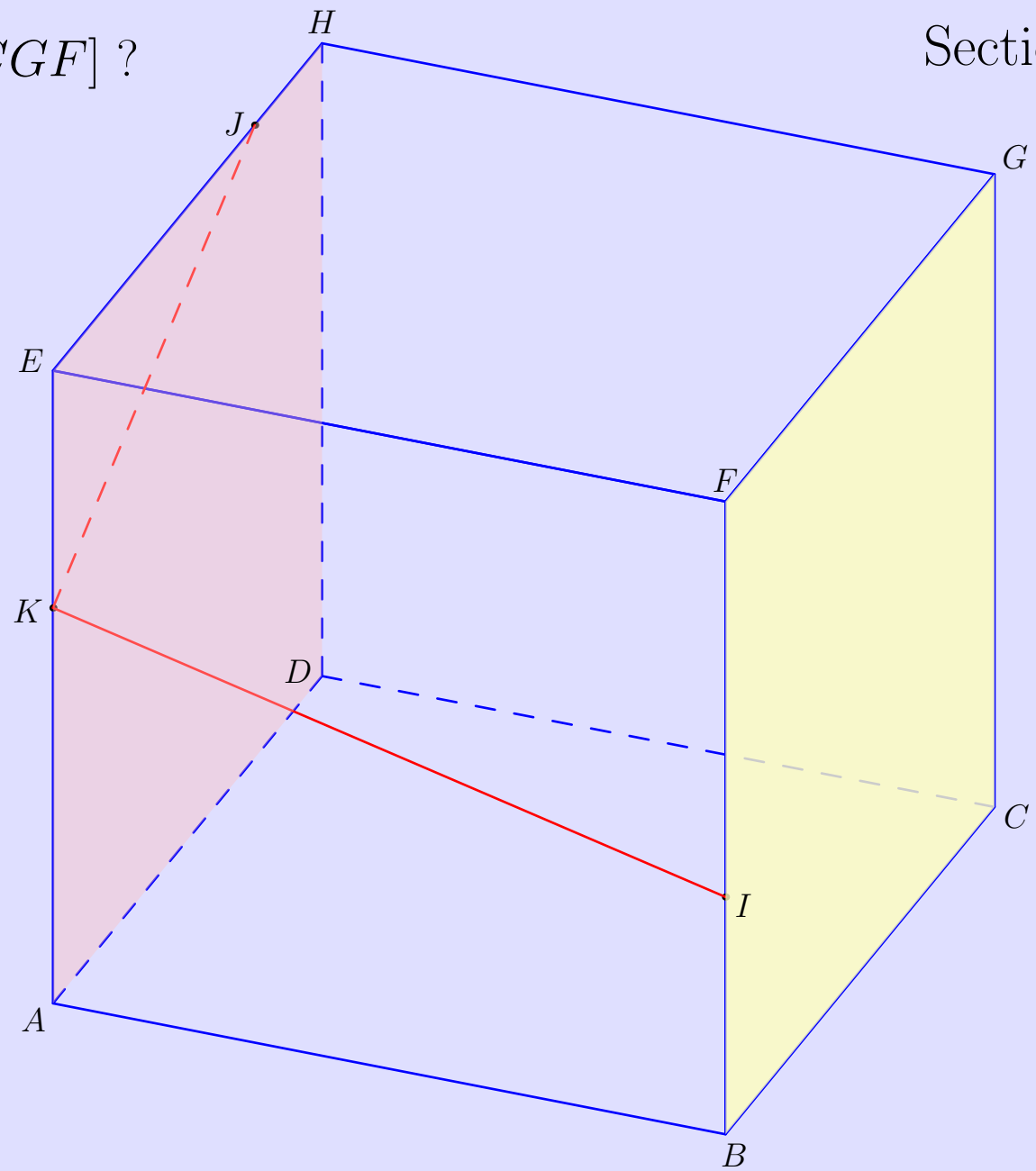




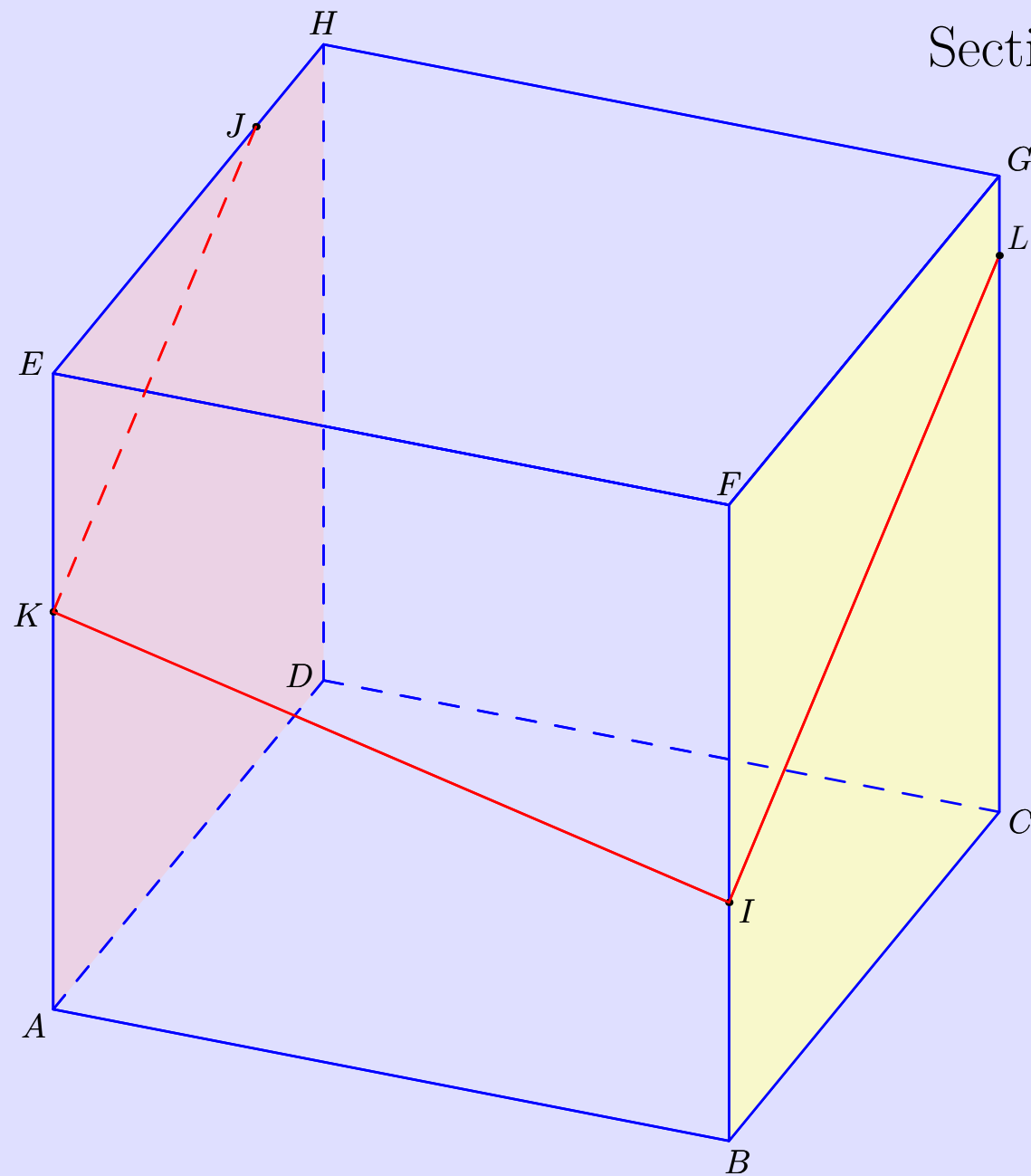


Trace laissée sur la face $[BCGF]$?

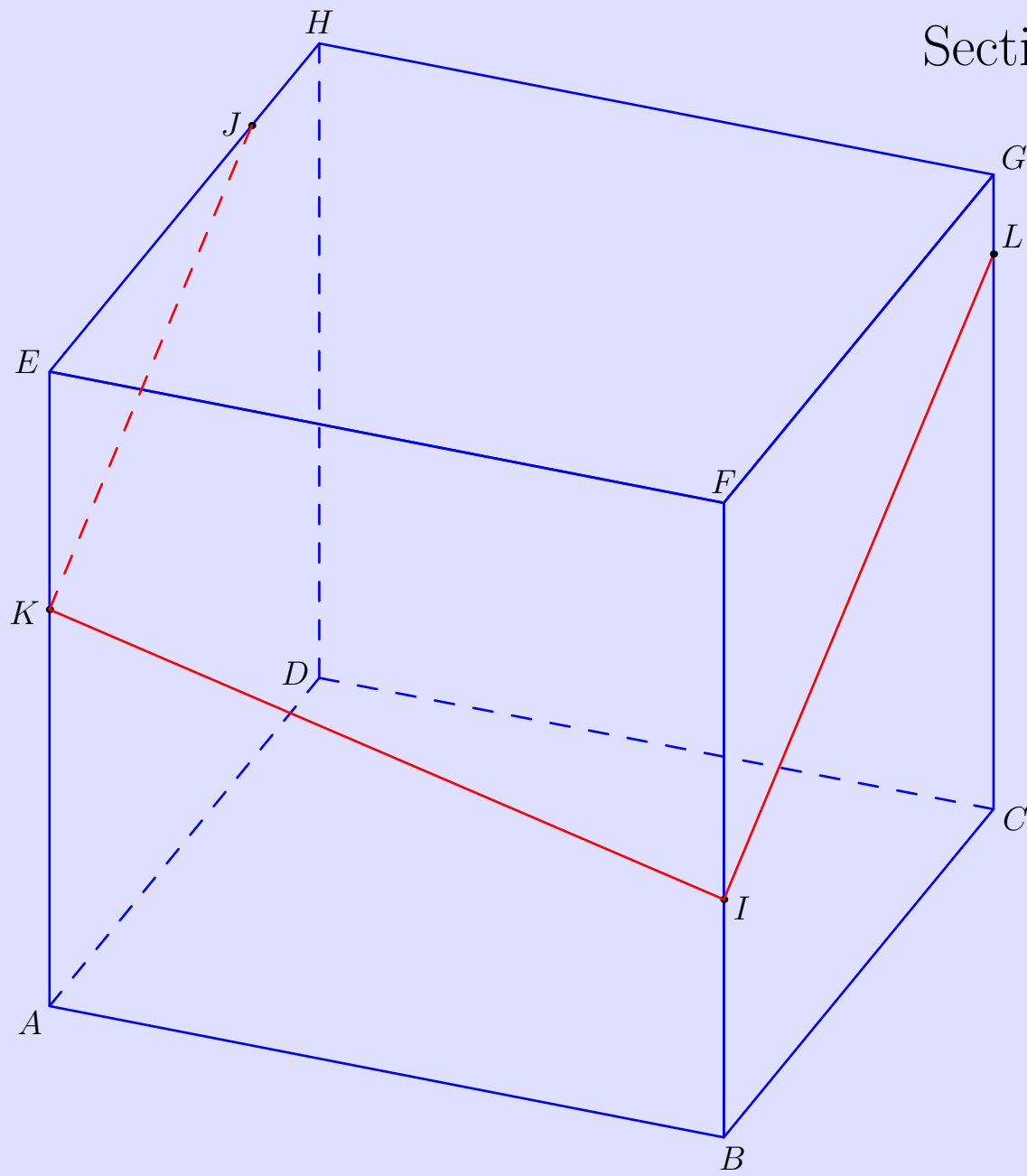
Section n°2



Les plans $(ADHE)$ et $(BCGF)$ sont parallèles...

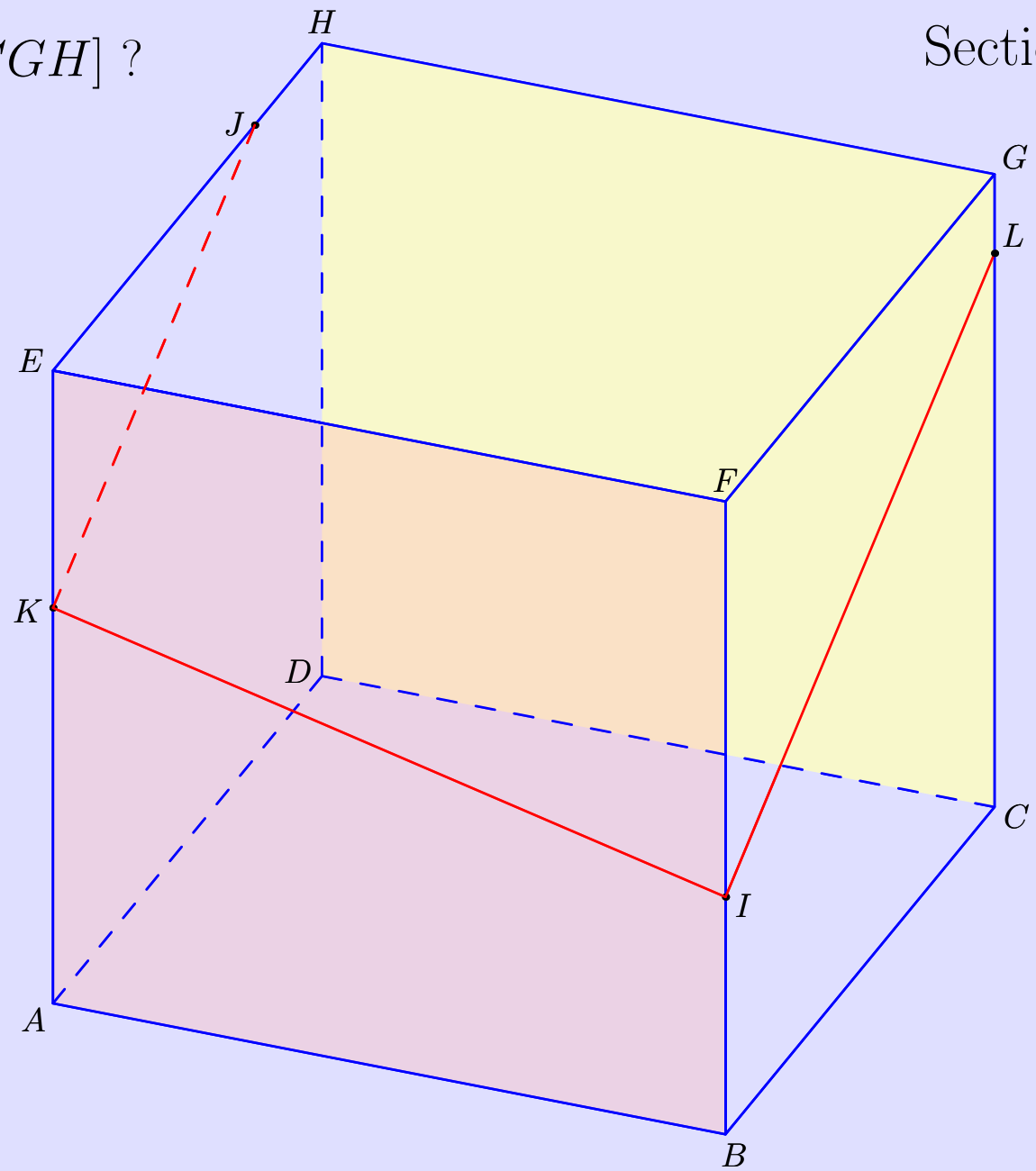


... donc les traces sur les faces $[ADHE]$ et $[BCGF]$ sont parallèles.

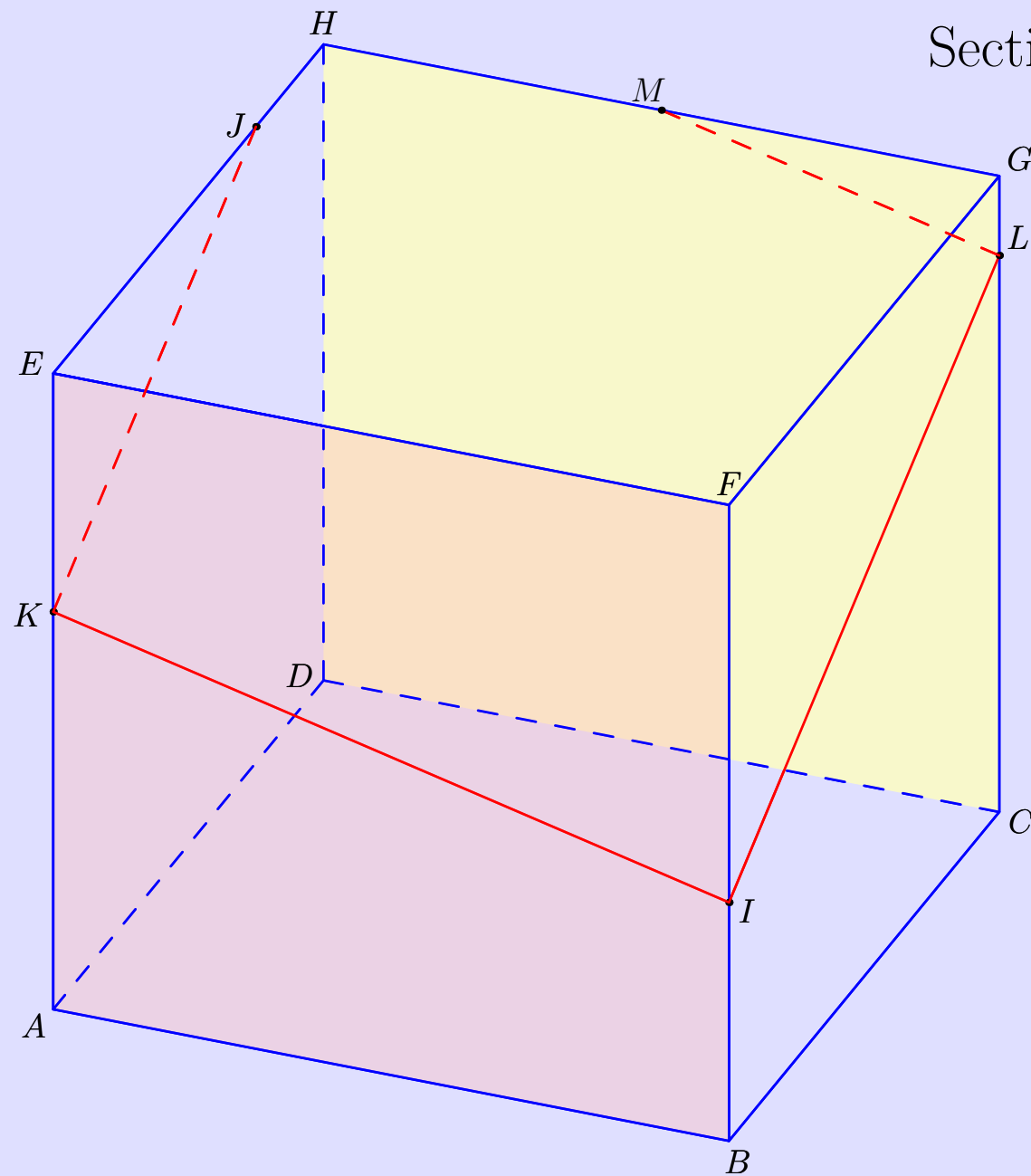


Trace laissée sur la face $[DCGH]$?

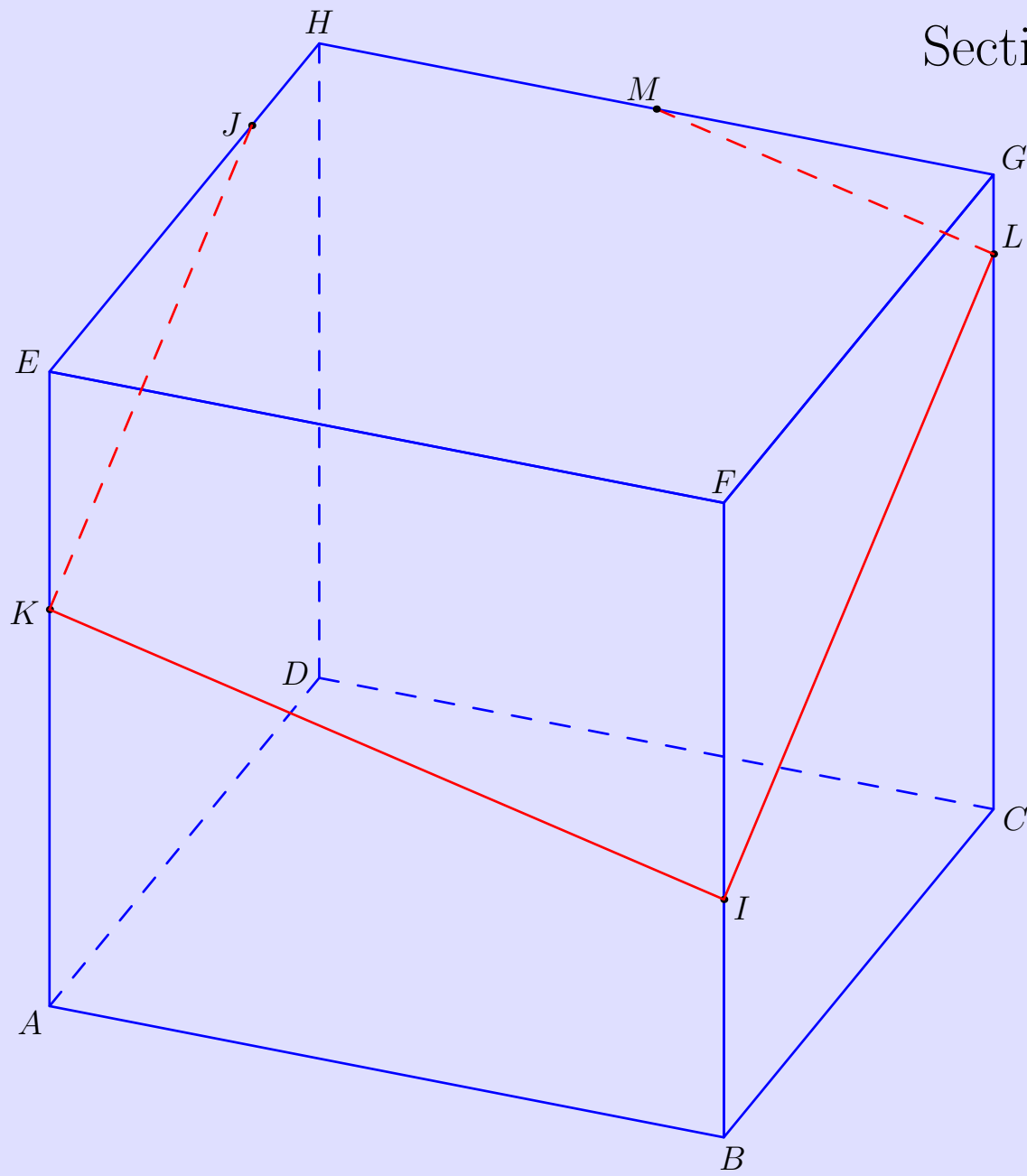
Section n°2



Les plans $(ABFE)$ et $(DCGH)$ sont parallèles...

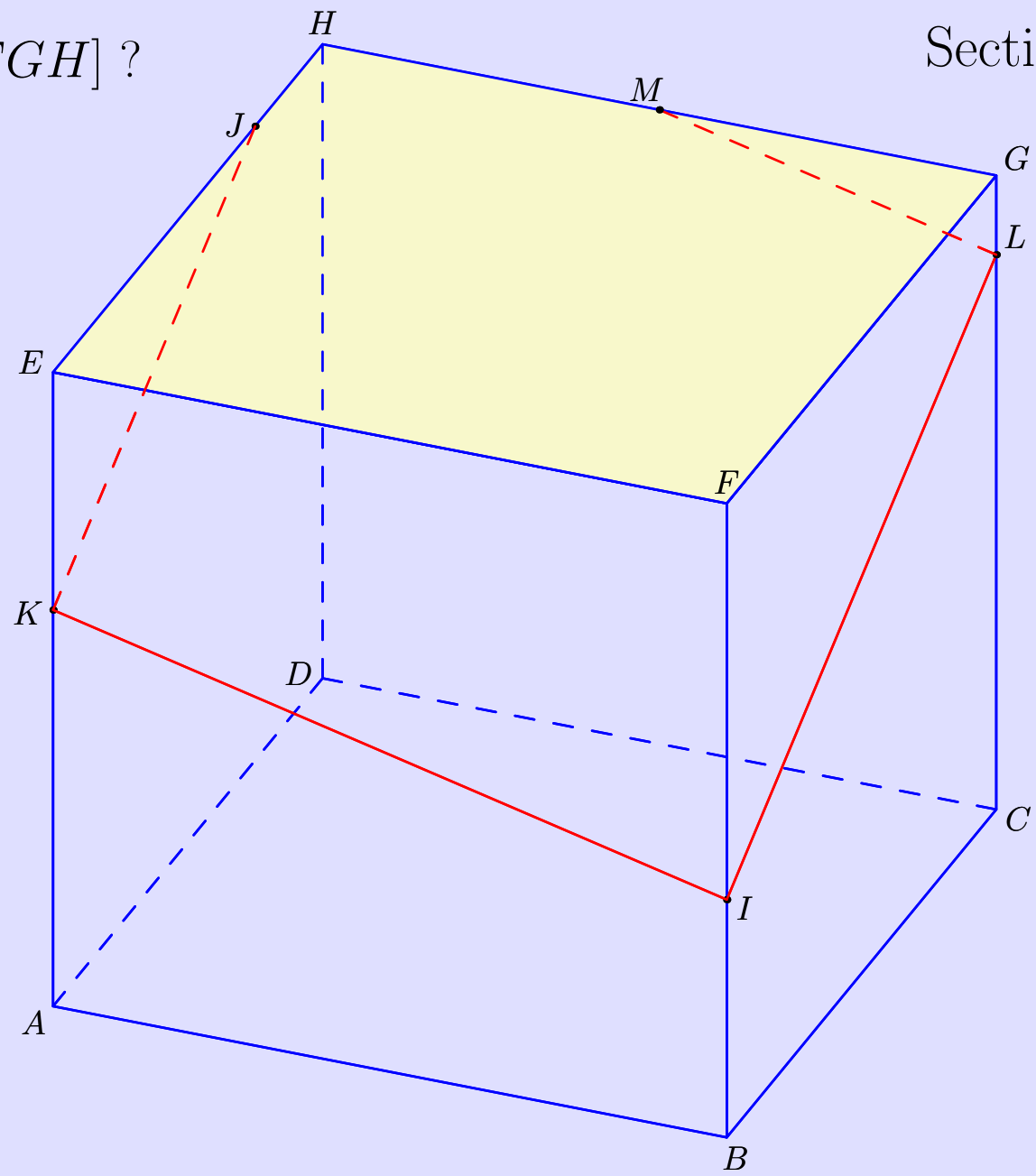


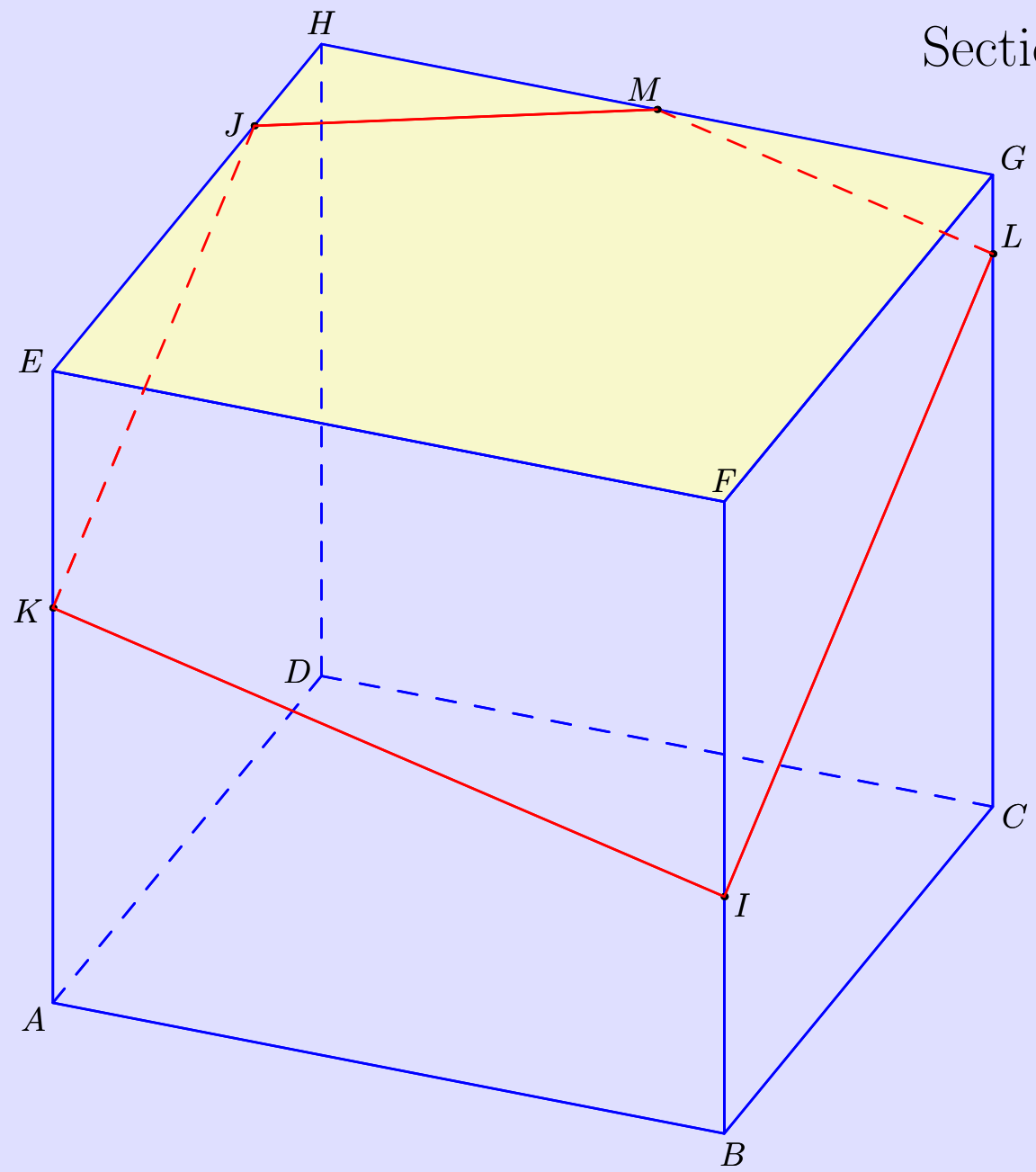
... donc les traces sur les faces $[ABFE]$ et $[DCGH]$ sont parallèles.



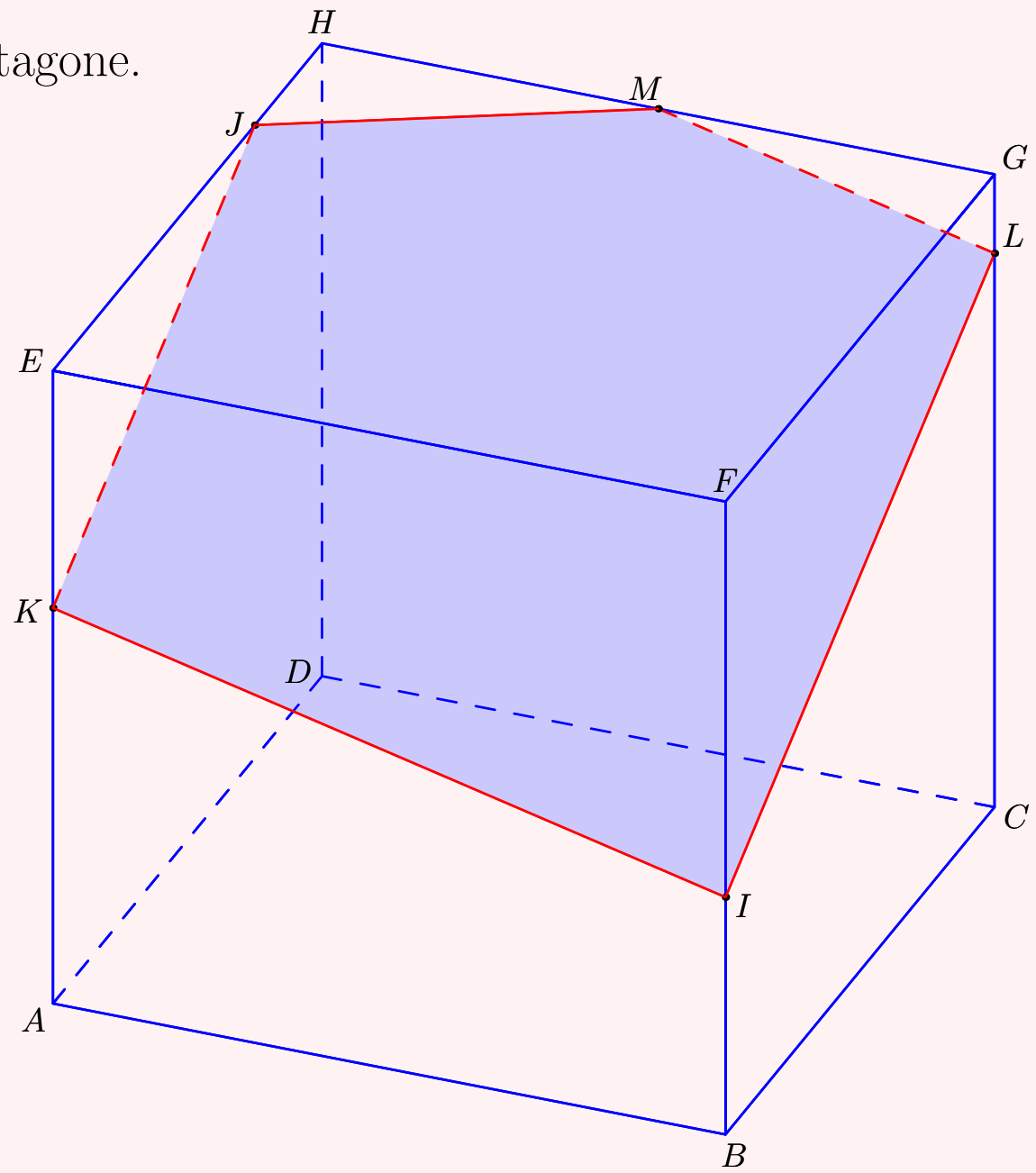
Trace laissée sur la face $[EFGH]$?

Section n°2



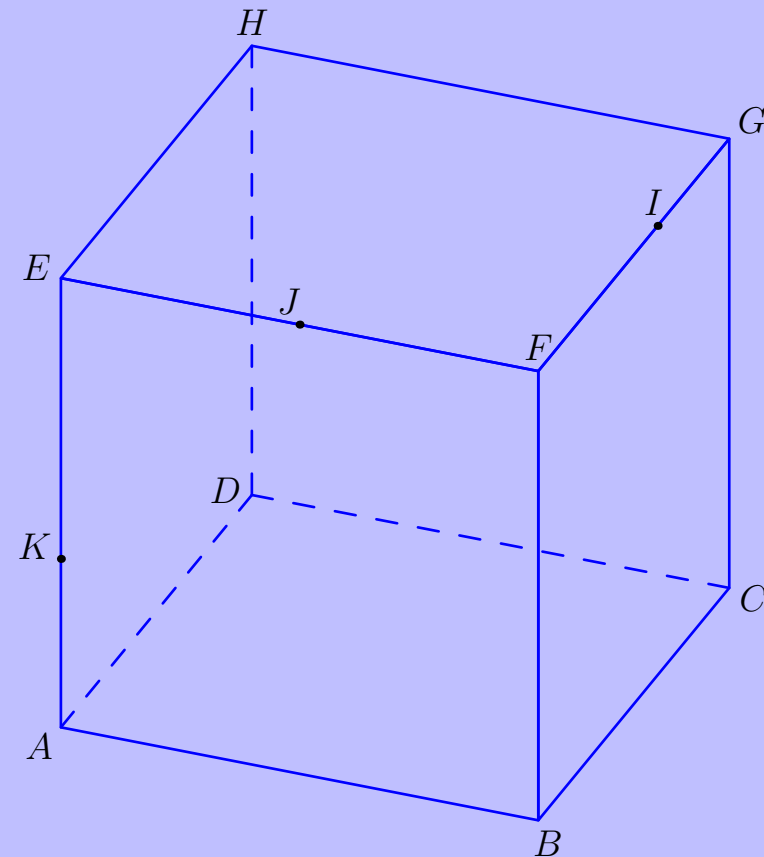


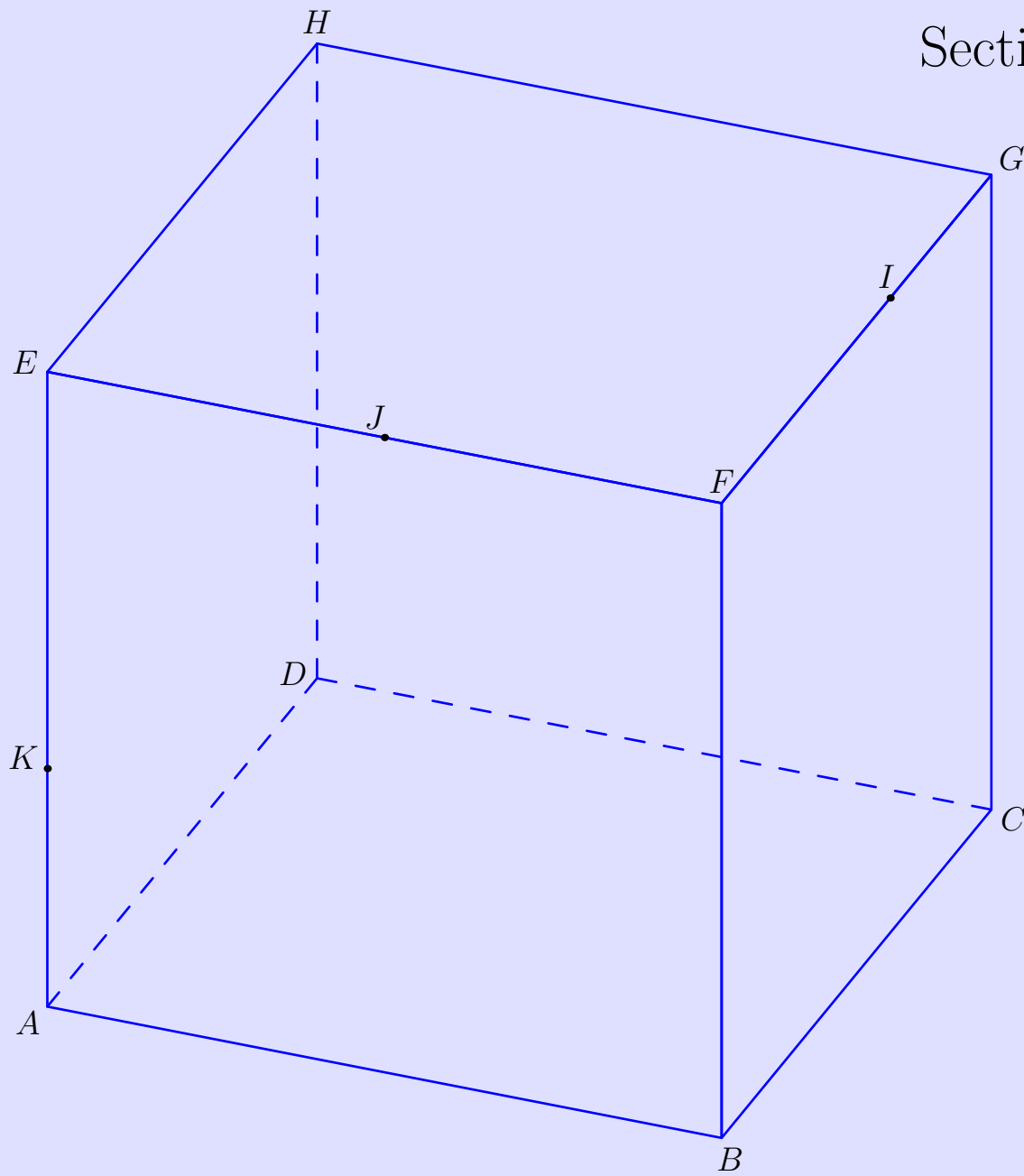
C'était la section 2 : un pentagone.



Section 3 du cube $ABCDEFGH$
(de côté 8) par le plan (IJK) tel que :

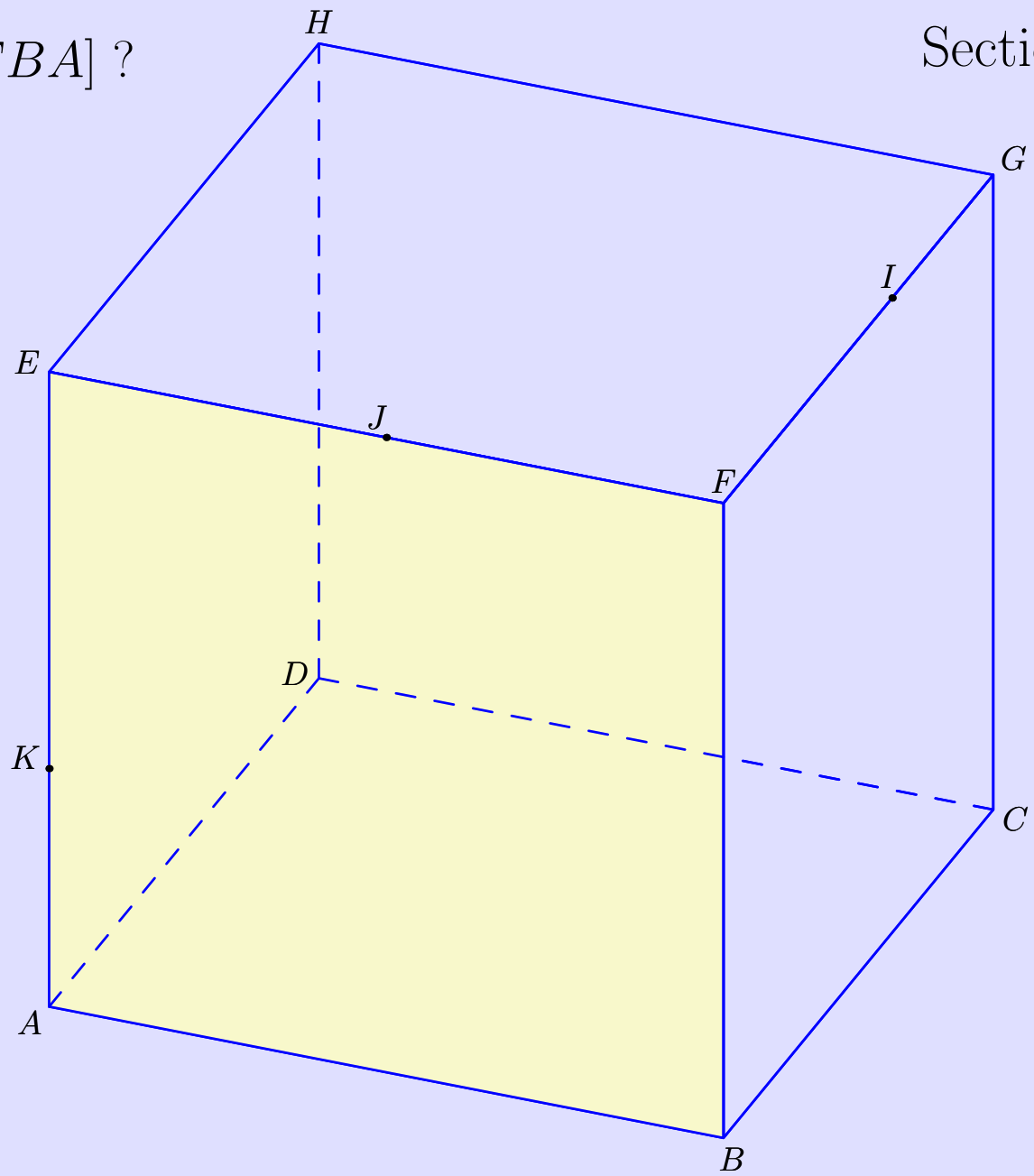
- I est le point de $[GF]$, tel que $GI = 3$
- J est le milieu de $[EF]$
- K est le point de $[AE]$, tel que $AK = 3$

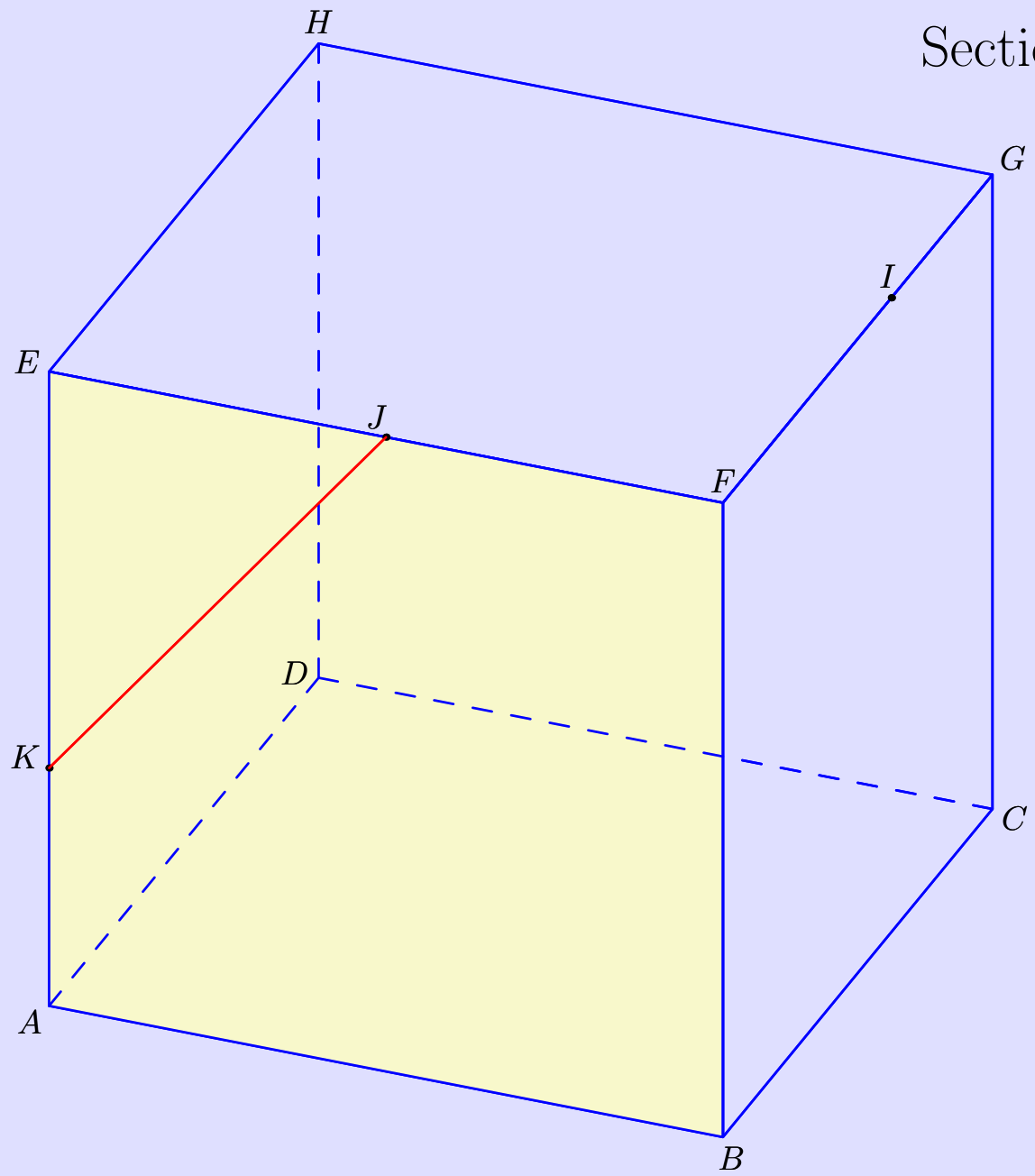


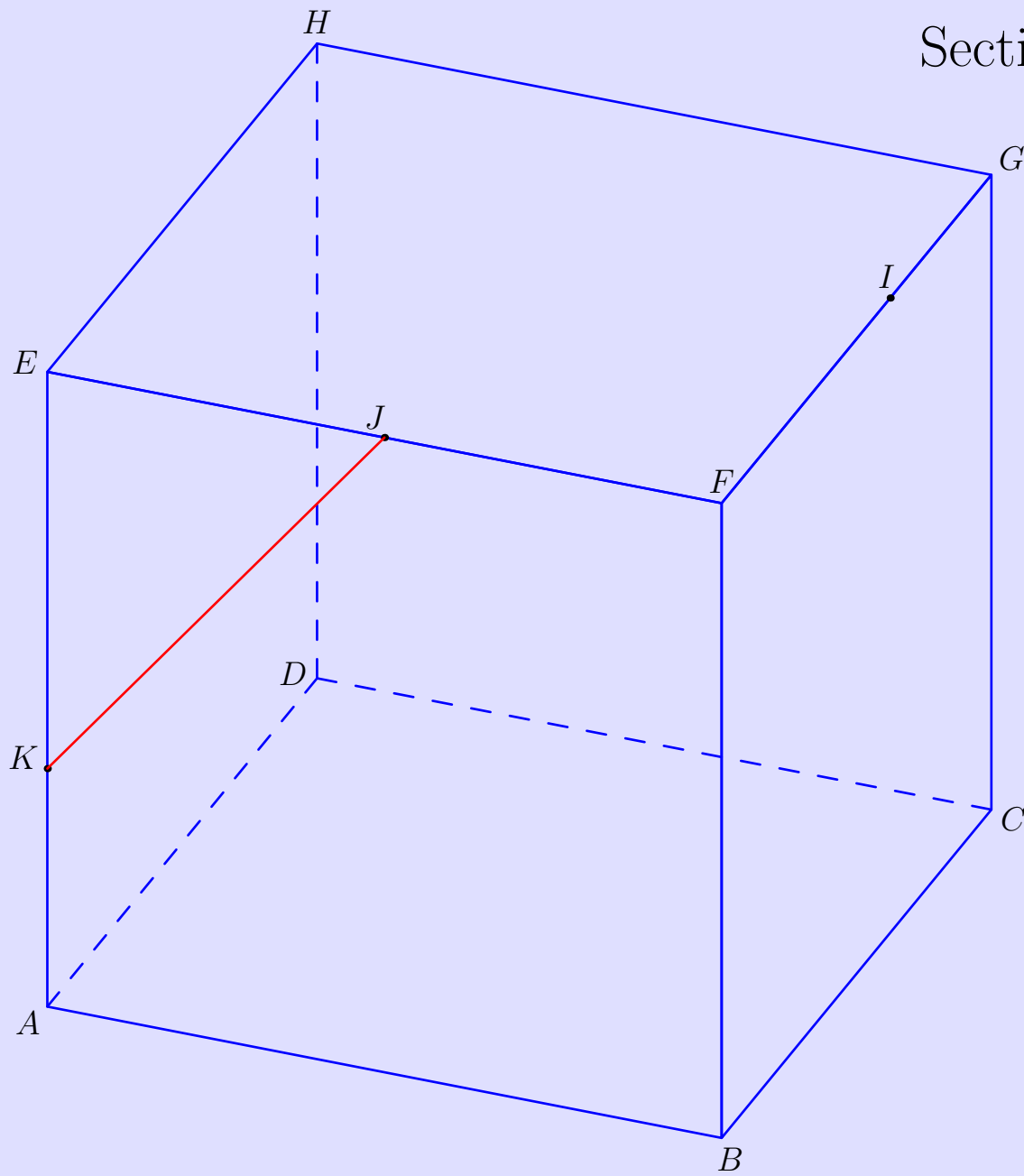


Trace laissée sur la face $[EFBA]$?

Section n°3

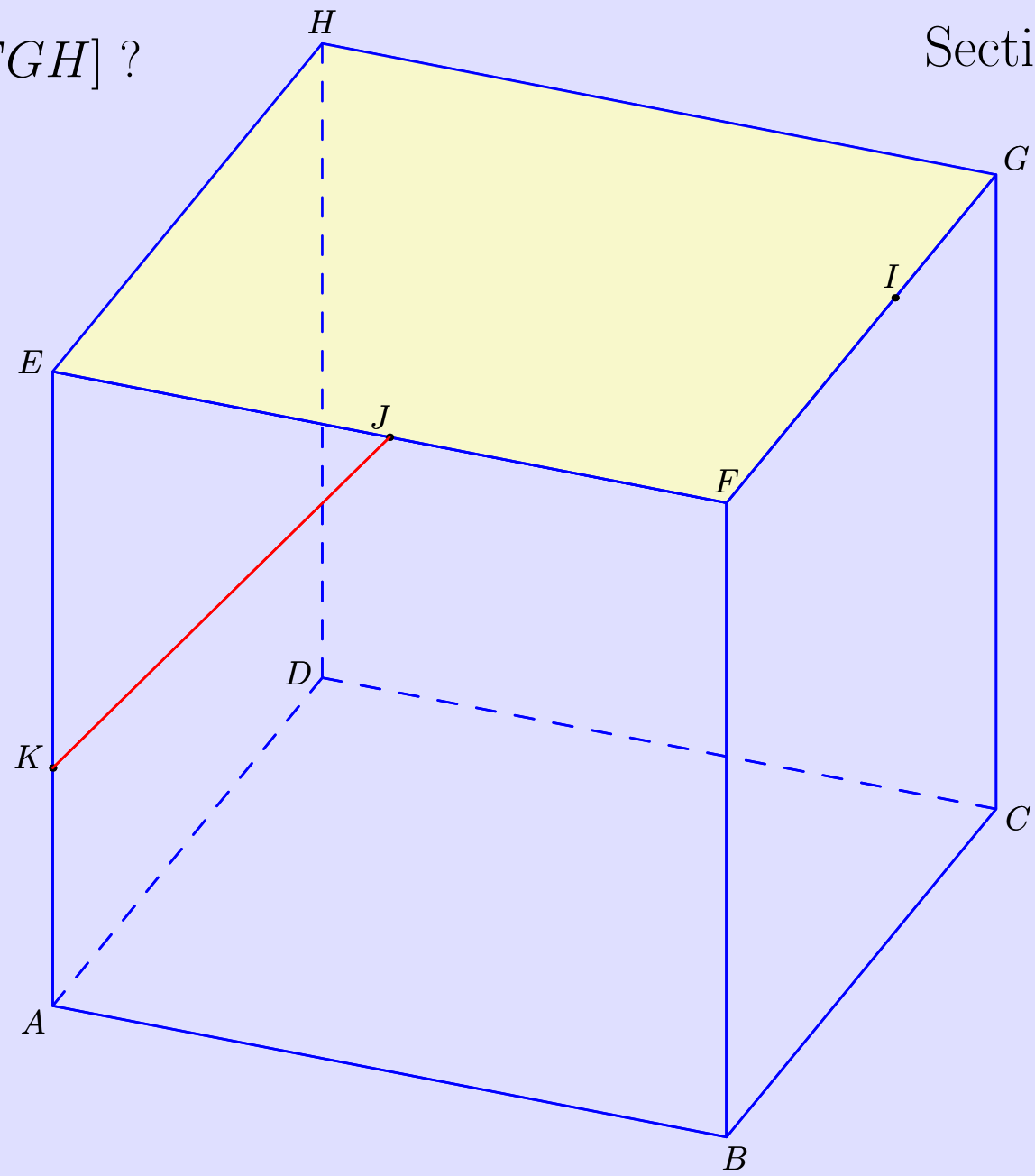


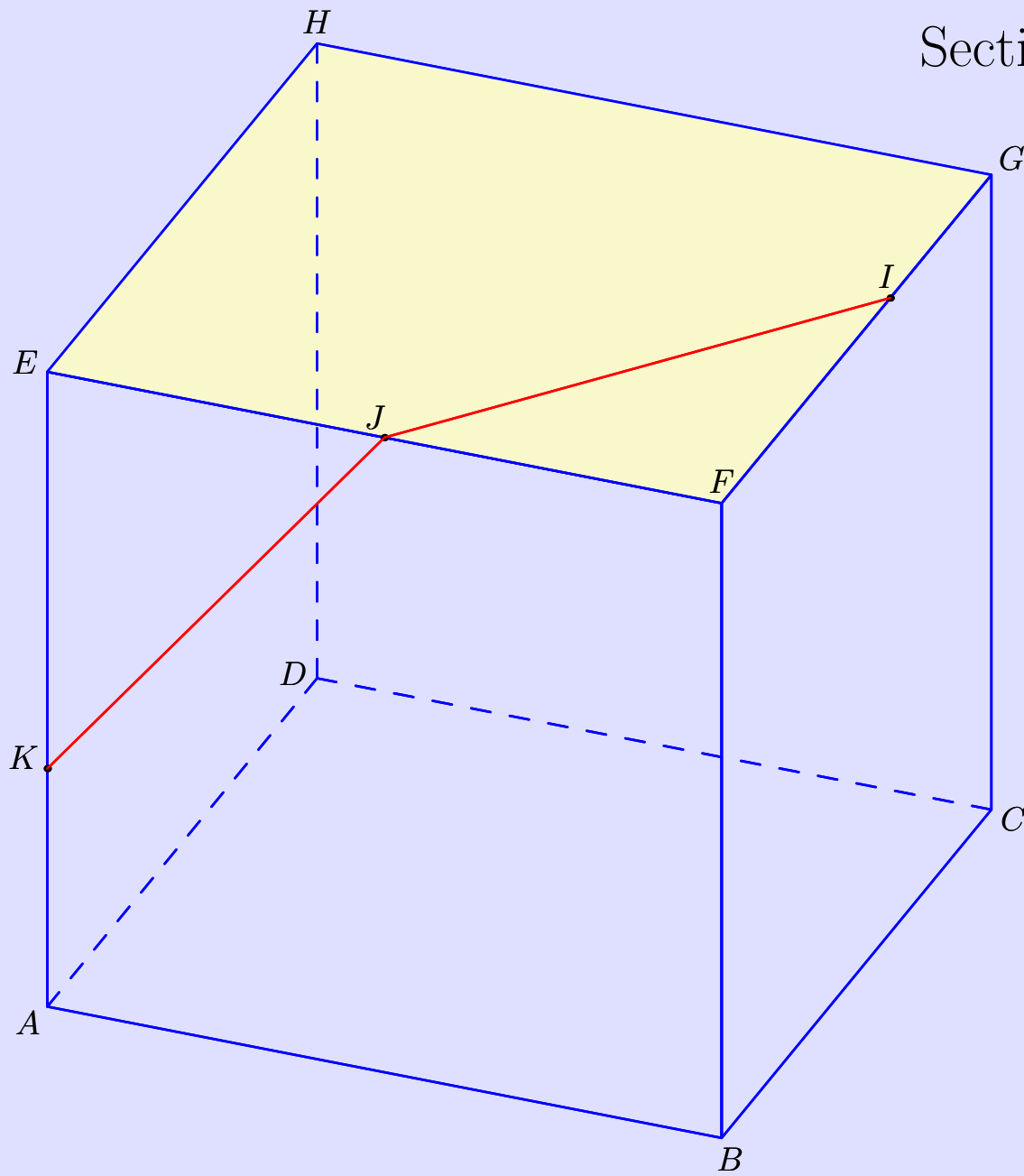


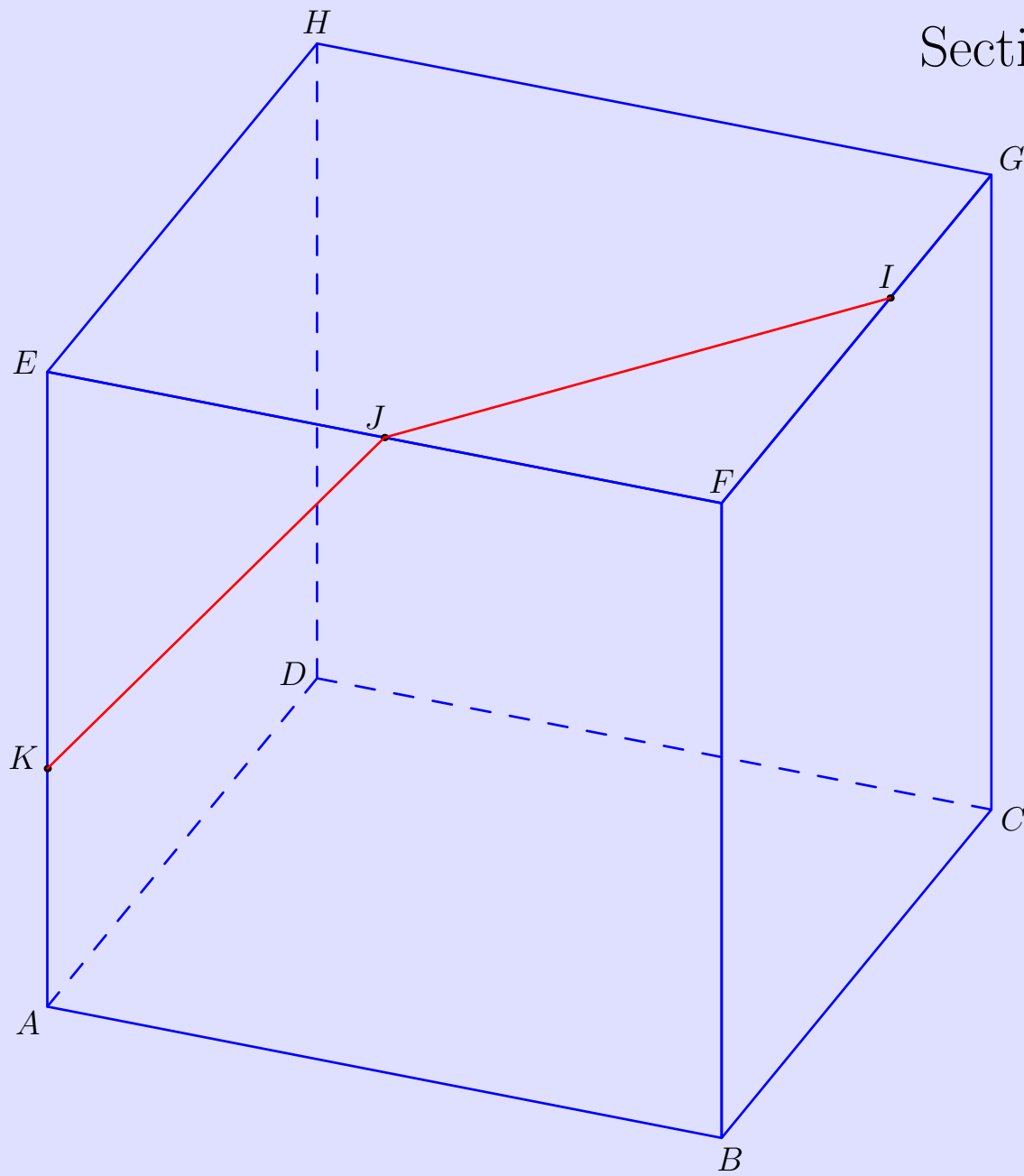


Trace laissée sur la face $[EFGH]$?

Section n°3

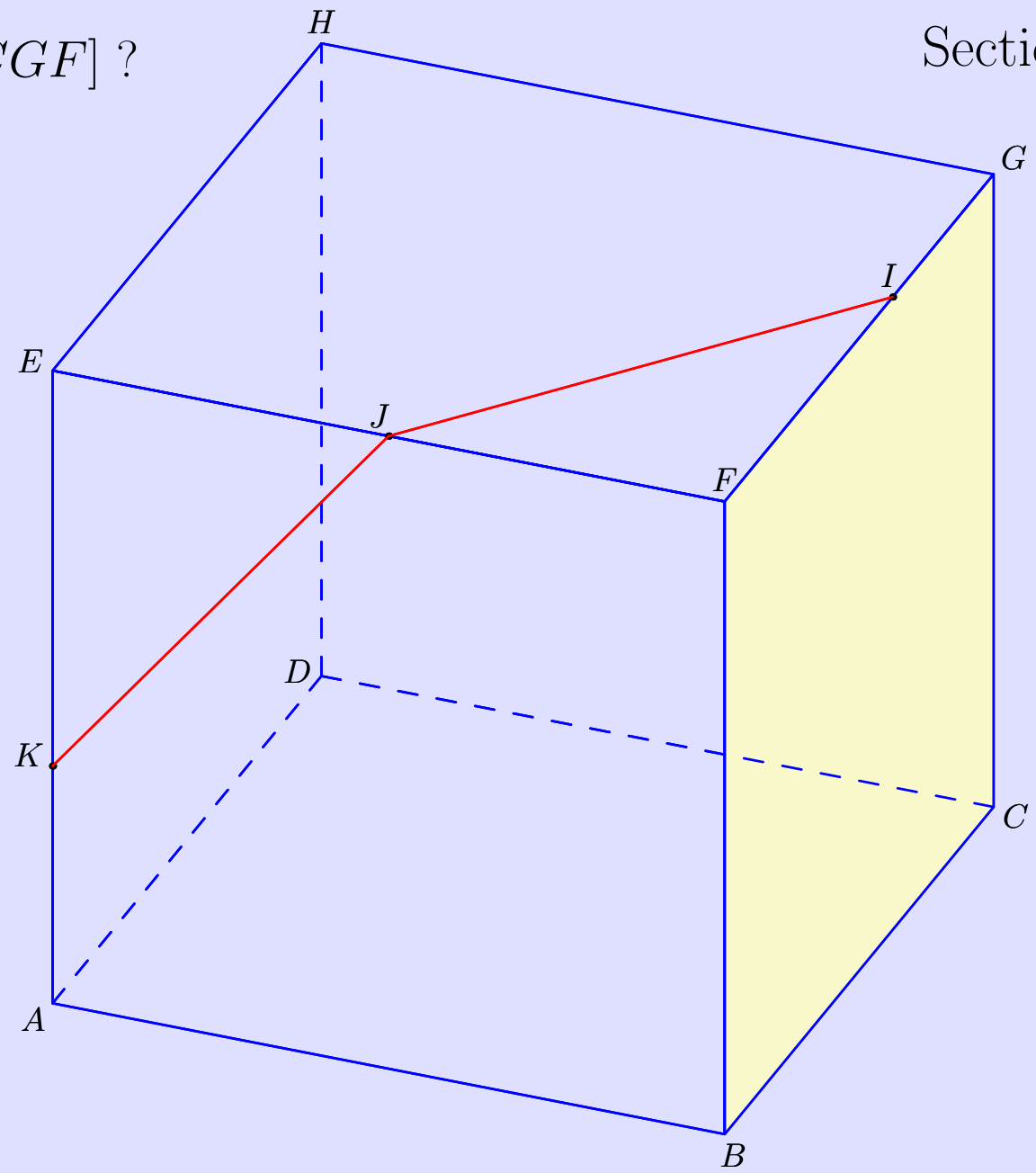


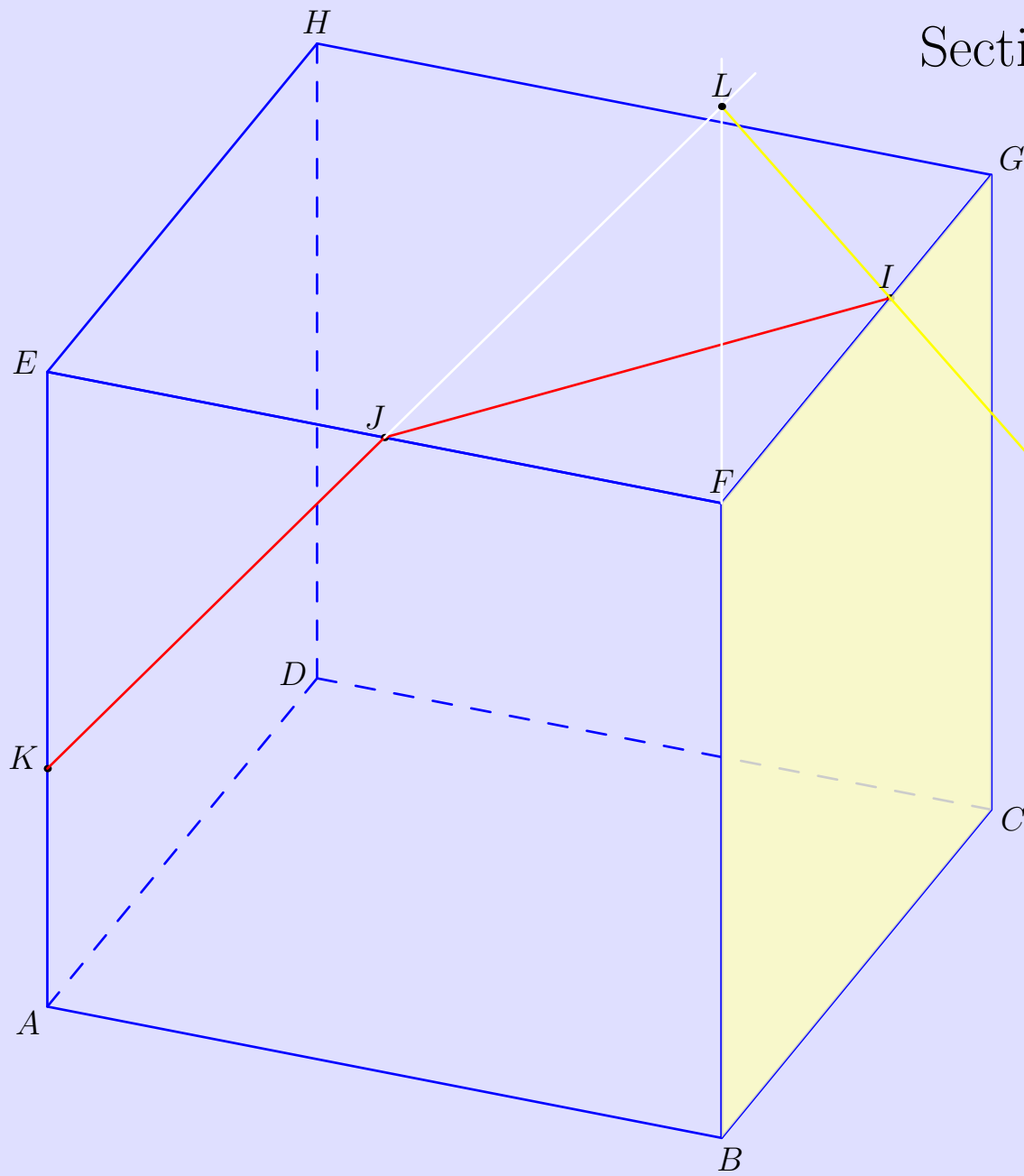


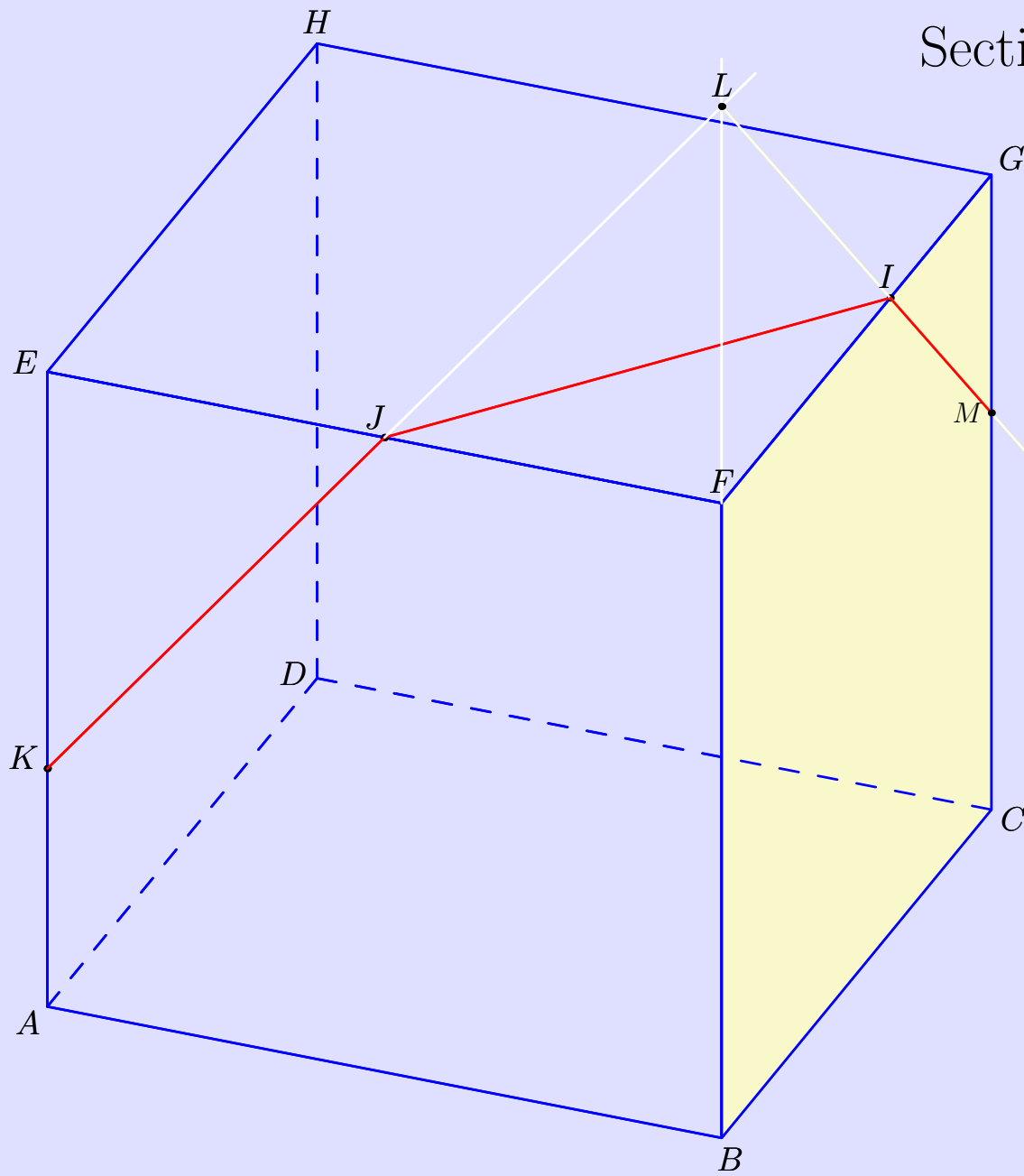


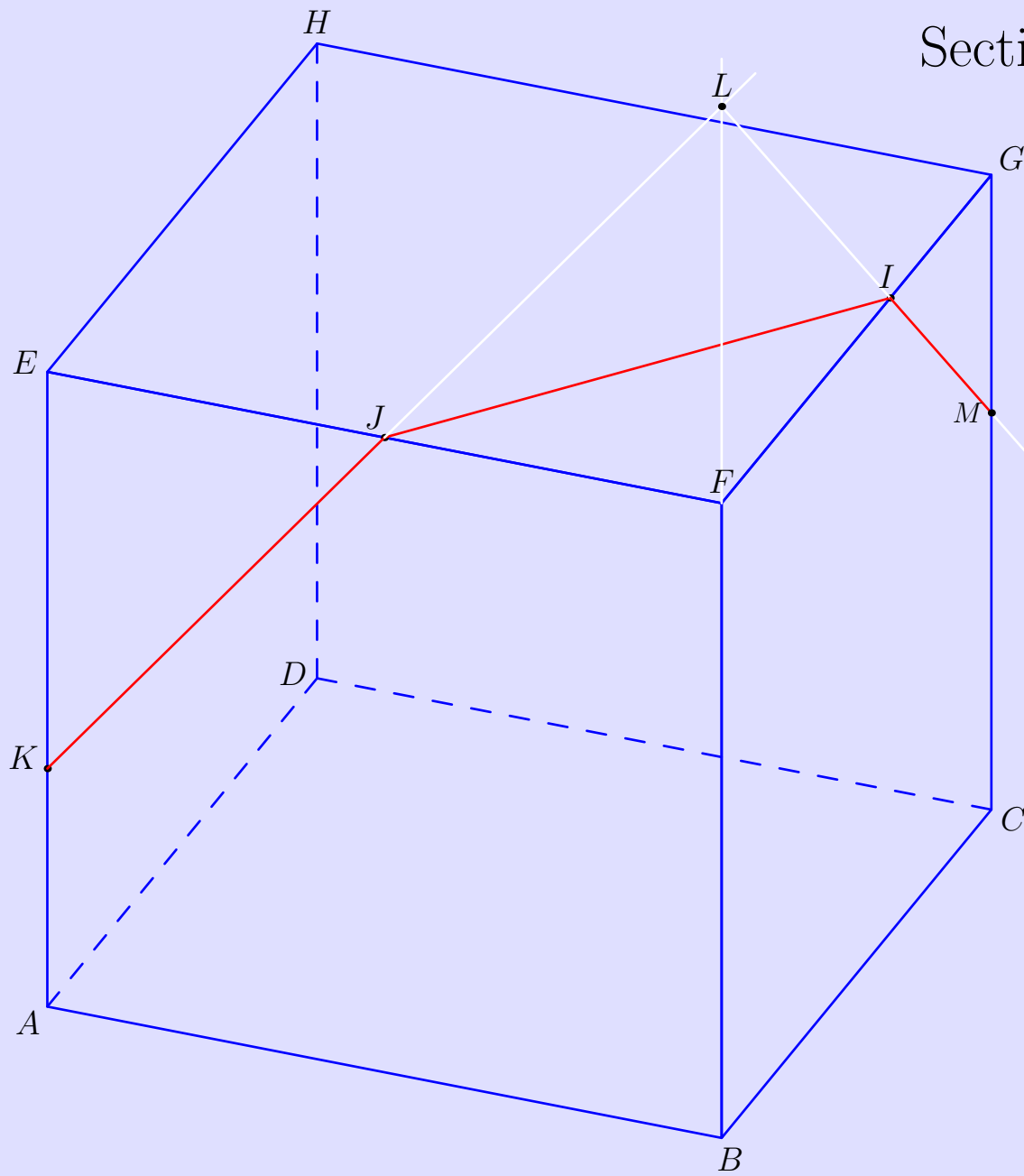
Trace laissée sur la face $[BCGF]$?

Section n°3



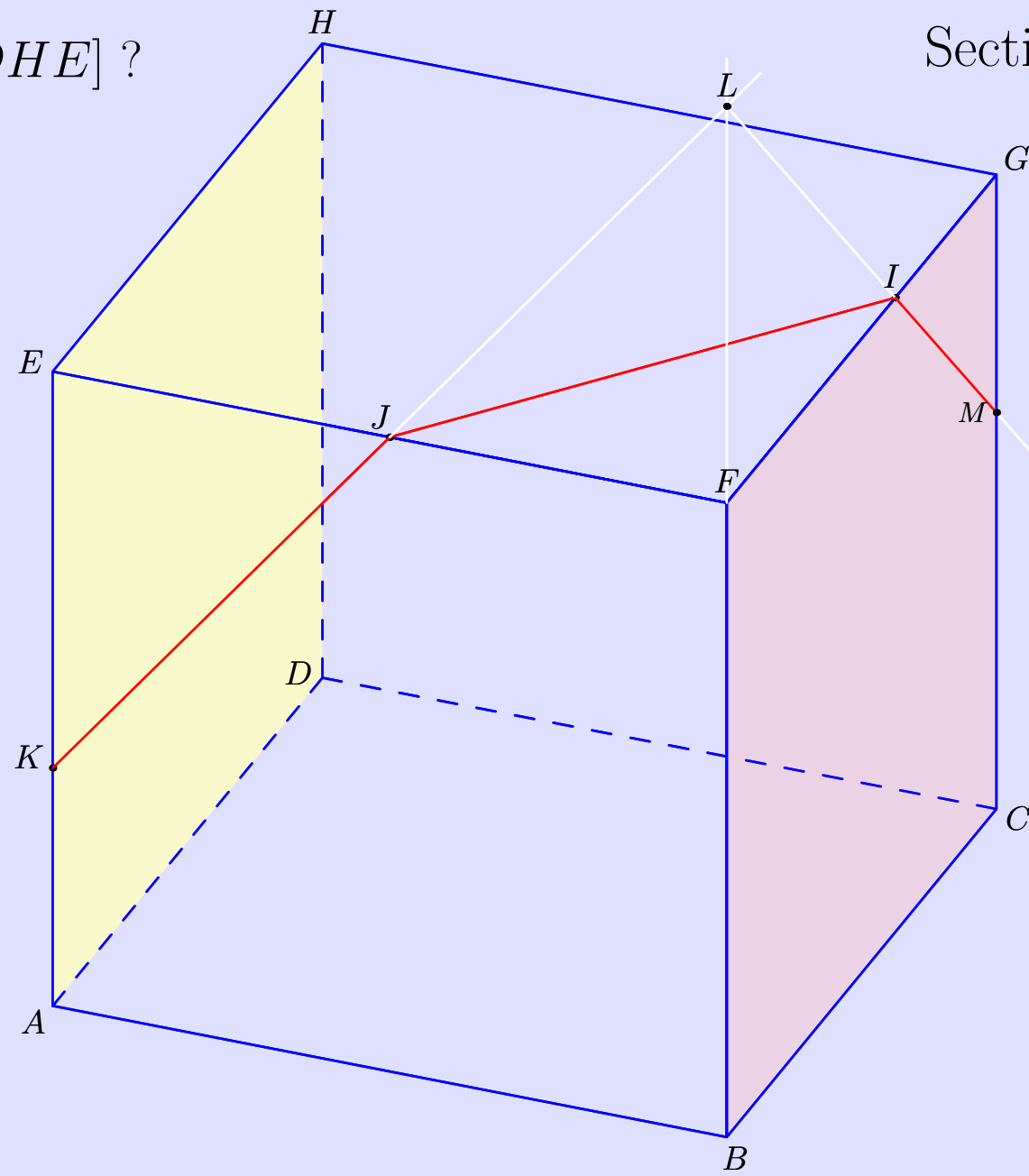




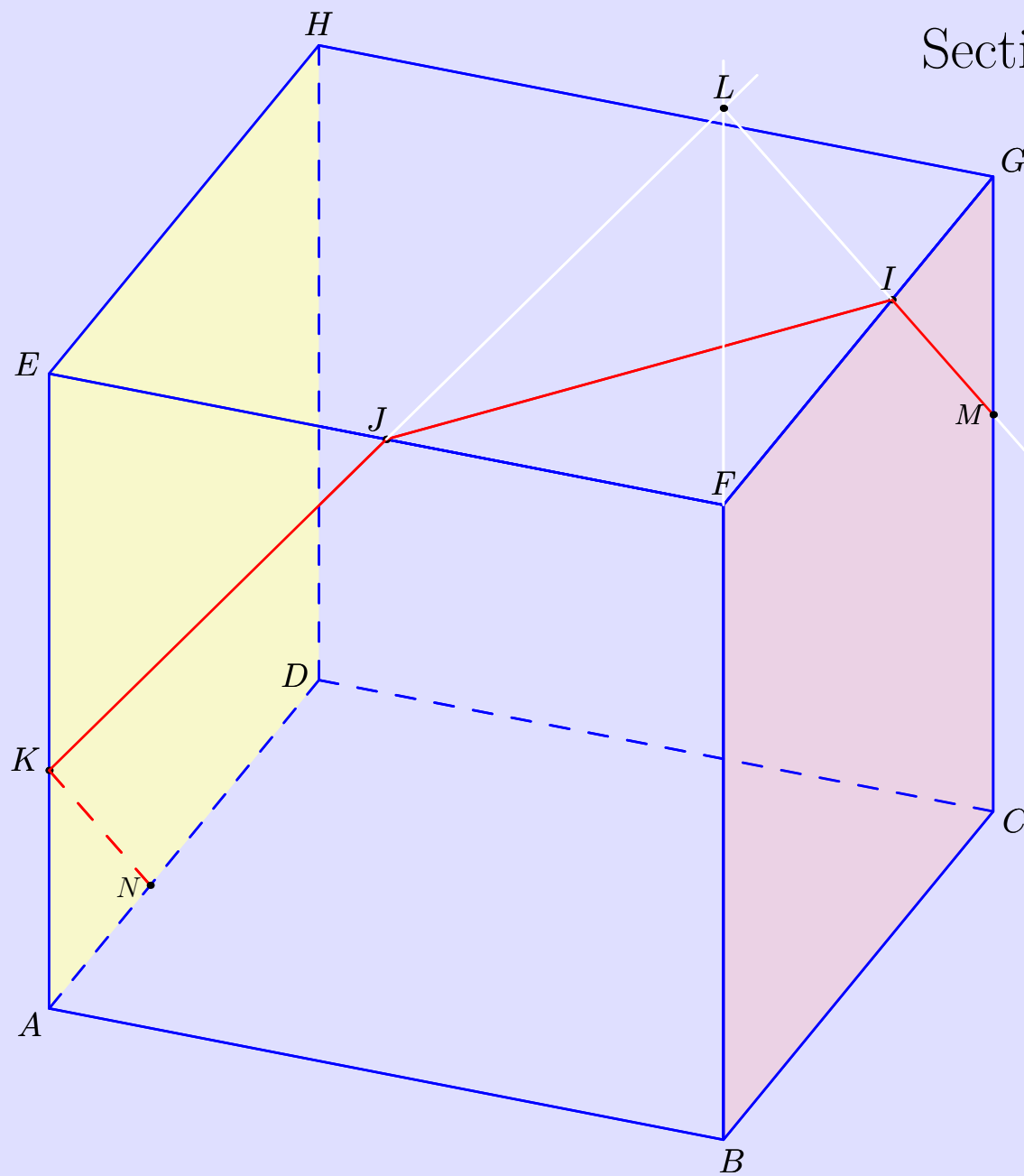


Trace laissée sur la face $[ADHE]$?

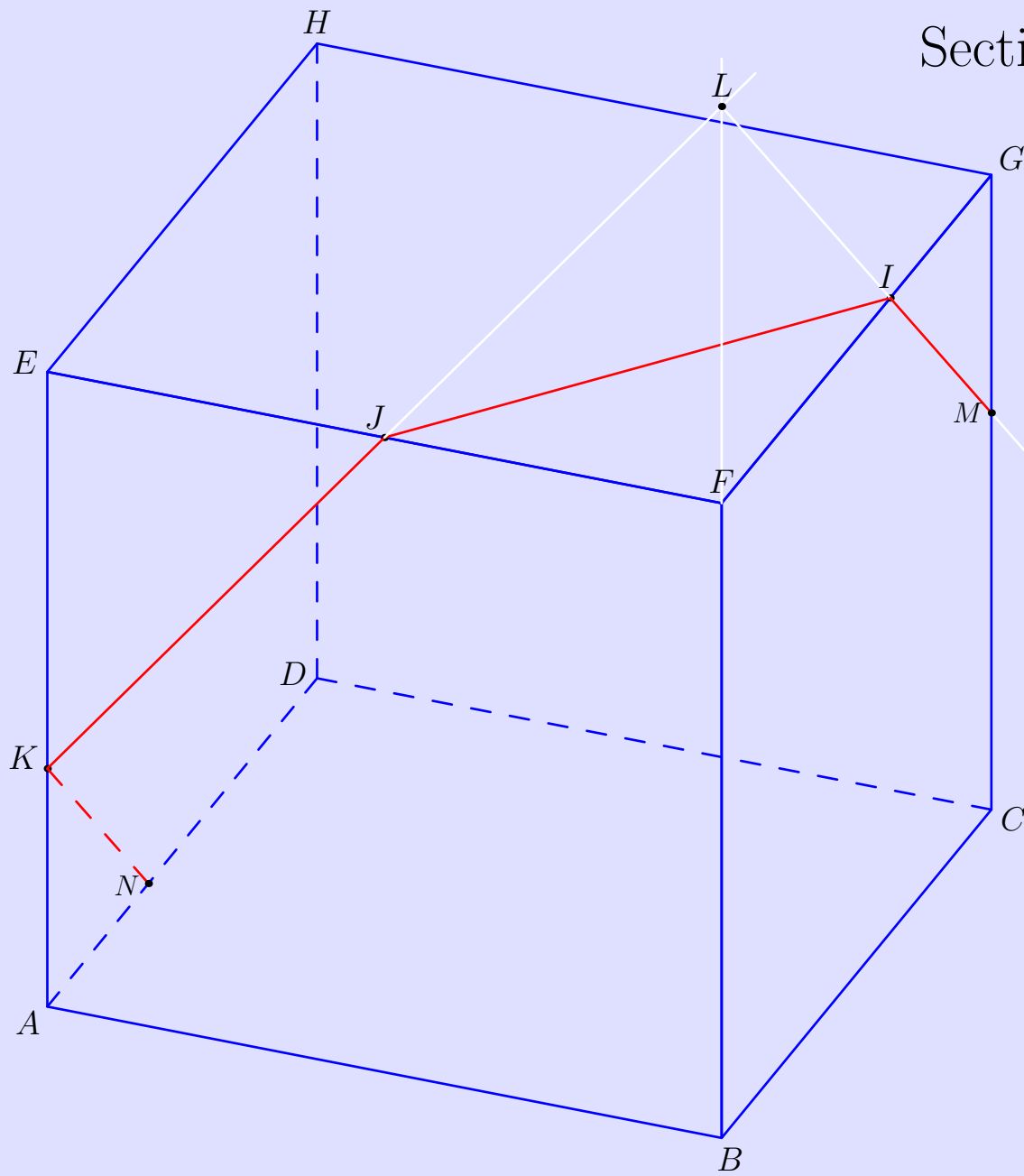
Section n°3



Les plans $(ADHE)$ et $(BCGF)$ sont parallèles...

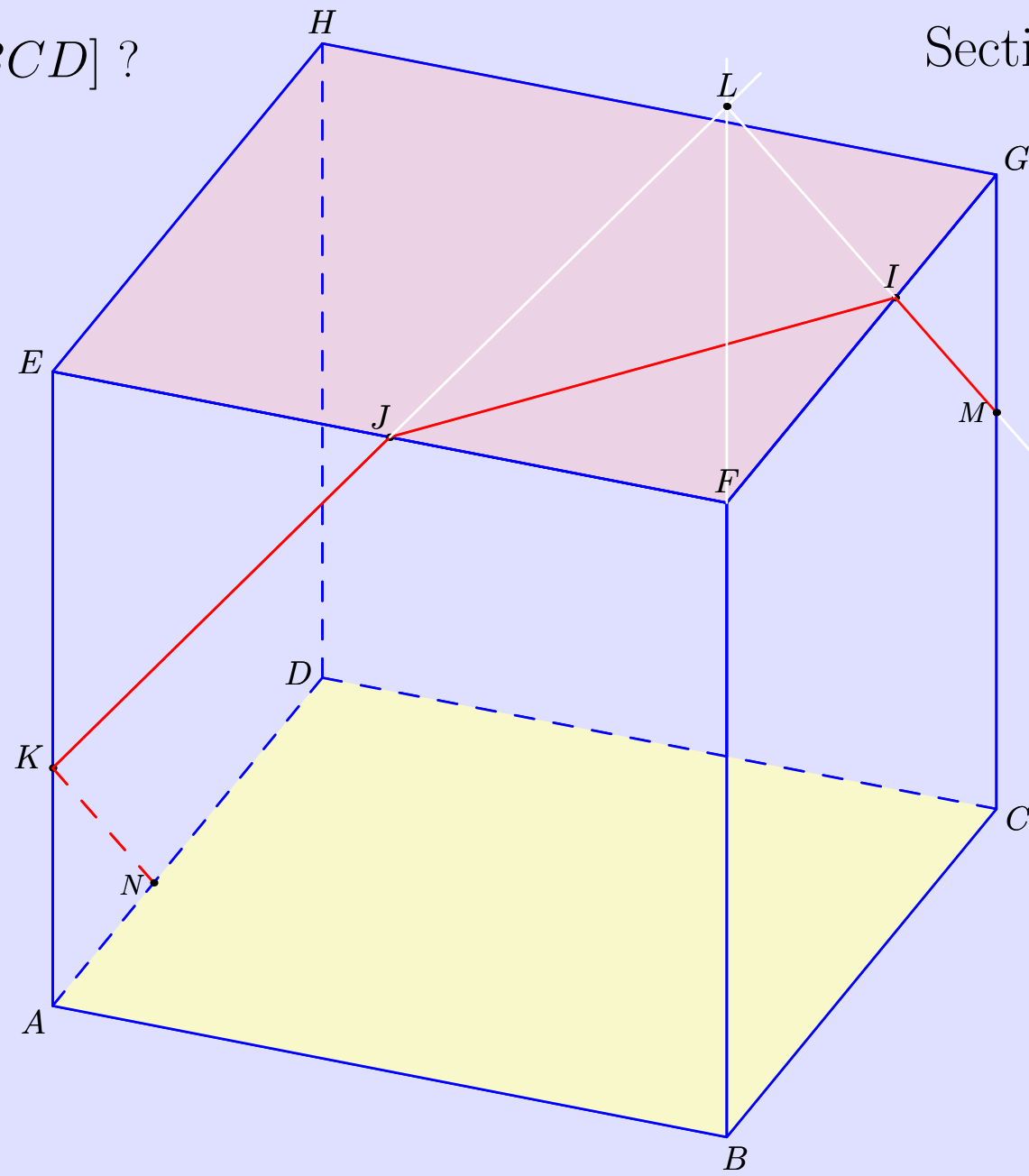


... donc les traces sur les faces $[ADHE]$ et $[BCGF]$ sont parallèles.

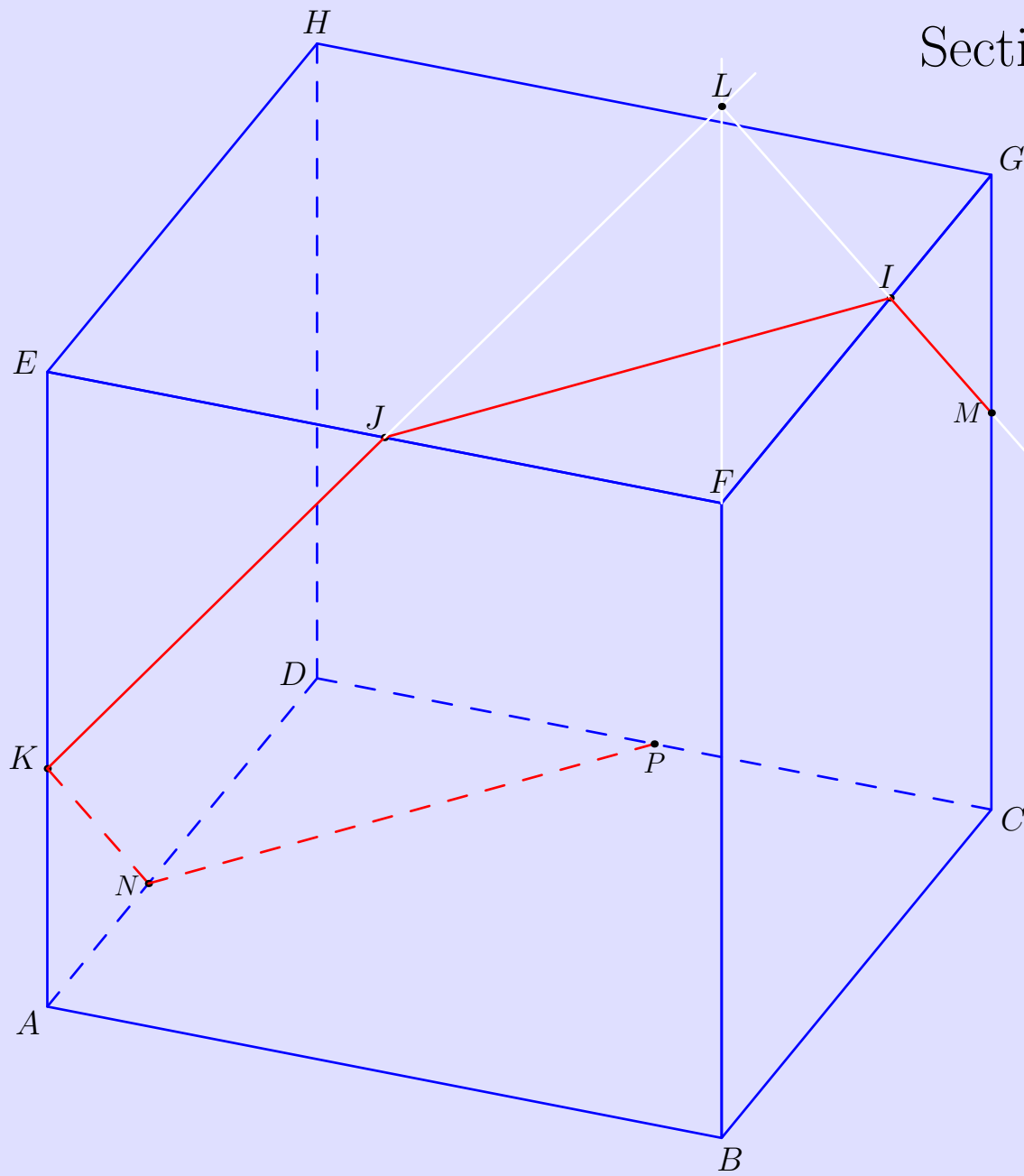


Trace laissée sur la face $[ABCD]$?

Section n°3

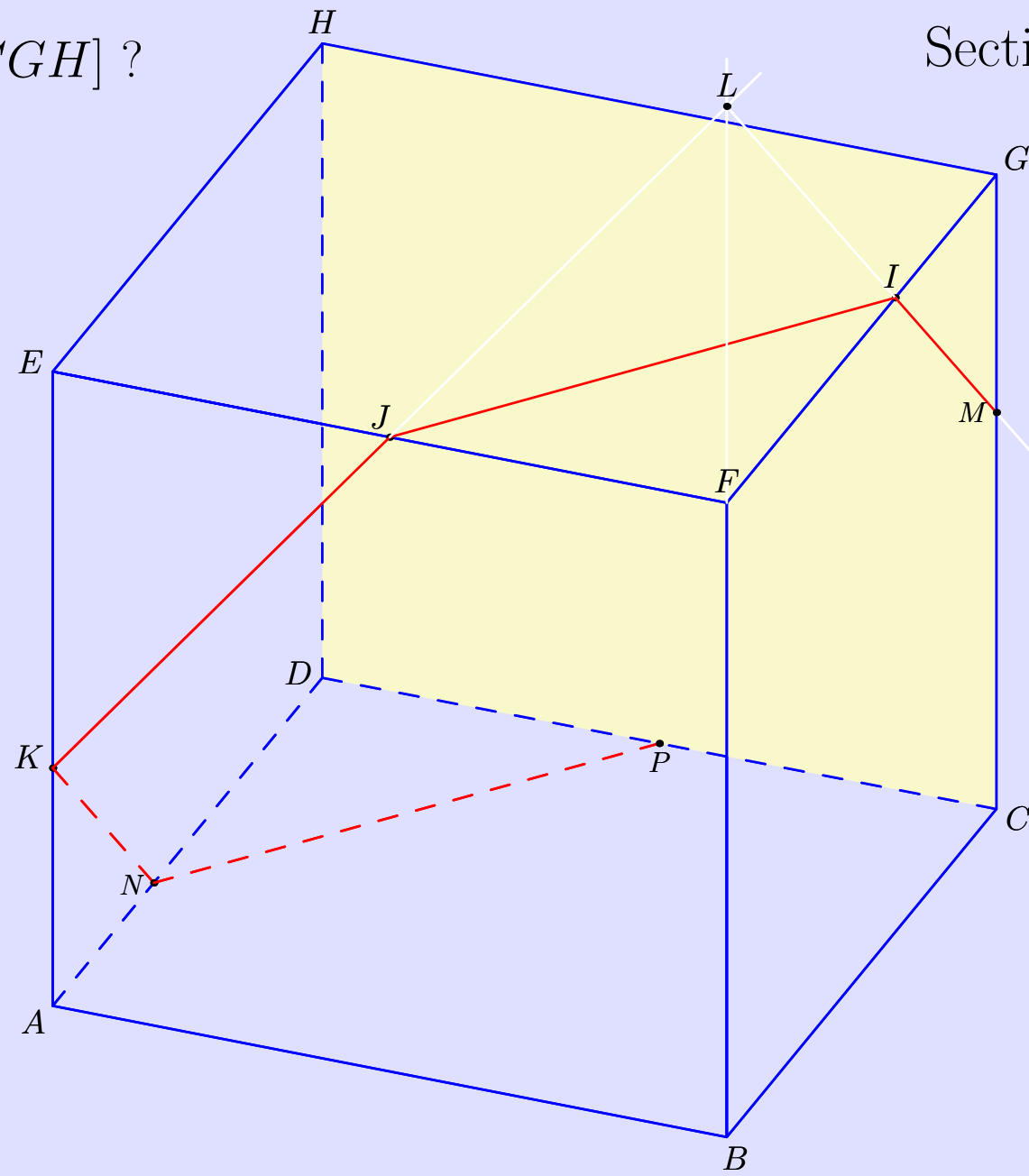


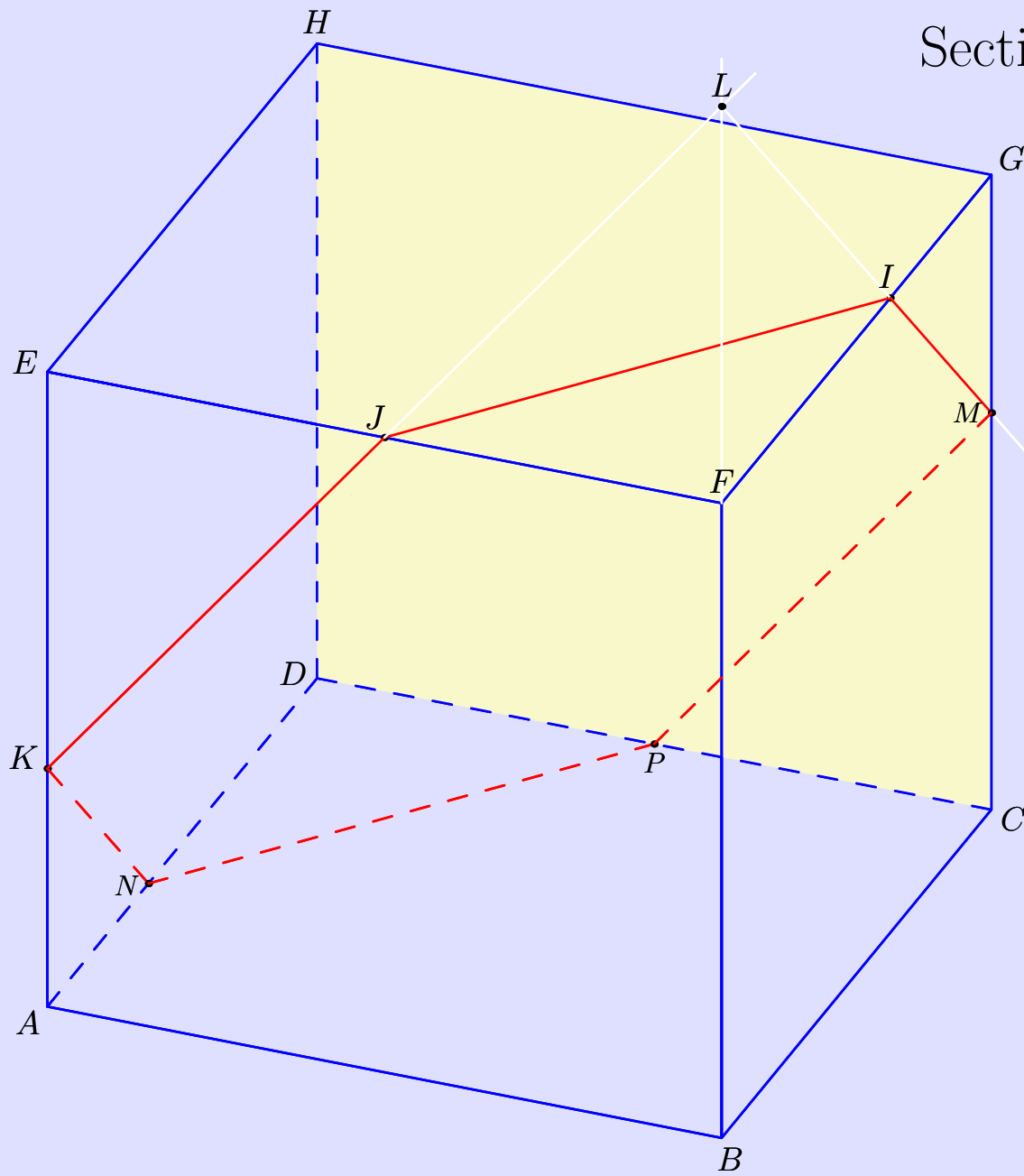
Les plans $(ABCD)$ et $(EFGH)$ sont parallèles...



Trace laissée sur la face $[DCGH]$?

Section n°3





C'était la section 3 : un hexagone.

