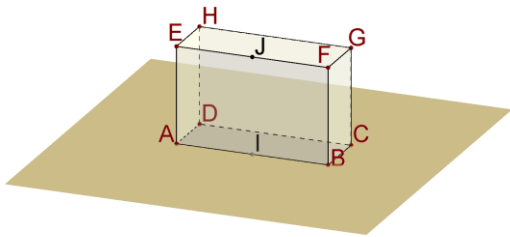


Géométrie dans l'espace : solides et volumes Série 2

Calcul mental et automatismes – IREM de Clermont-Ferrand

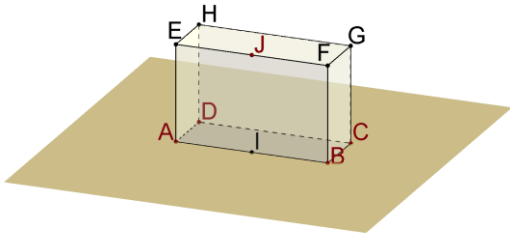
Donner le nom du solide
(ex : cube, pyramide, ...)

1) Solide ABCDEFGH



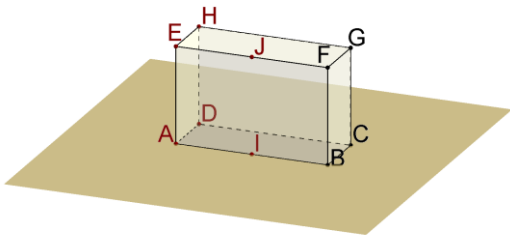
I milieu de $[AB]$, J milieu de $[EF]$

2) Solide JABCD



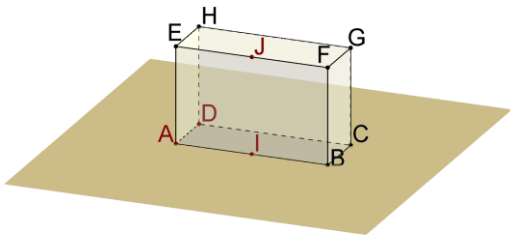
I milieu de $[AB]$, J milieu de $[EF]$

3) Solide JEHIAD



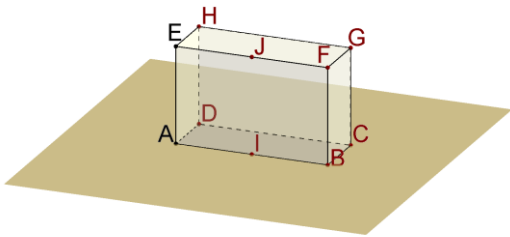
I milieu de $[AB]$, J milieu de $[EF]$

4) Solide JADI



I milieu de $[AB]$, J milieu de $[EF]$

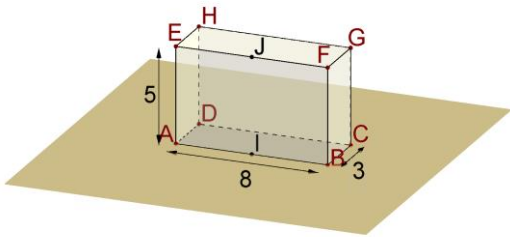
5) Solide DIBCHJFG



I milieu de $[AB]$, J milieu de $[EF]$

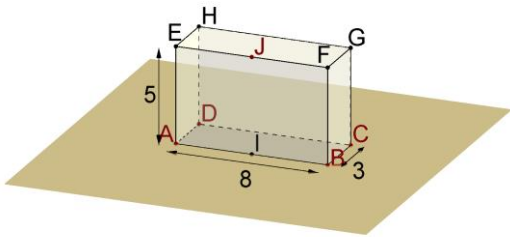
Calculer le volume
du solide

6) Solide ABCDEFGH



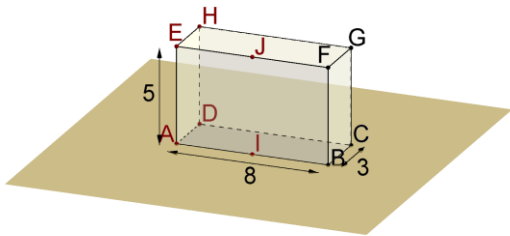
I milieu de $[AB]$, J milieu de $[EF]$

7) Solide JABCD



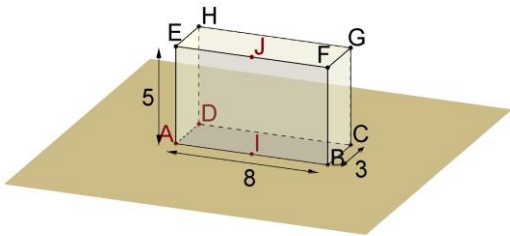
I milieu de $[AB]$, J milieu de $[EF]$

8) Solide JEHIAD



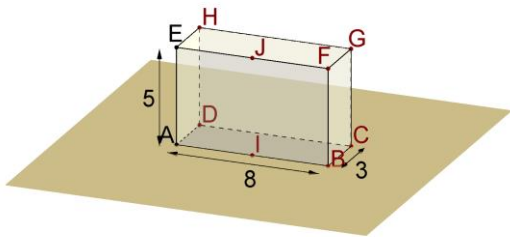
I milieu de $[AB]$, J milieu de $[EF]$

9) Solide JADI



I milieu de $[AB]$, J milieu de $[EF]$

10) Solide DIBCHJFG



I milieu de $[AB]$, J milieu de $[EF]$

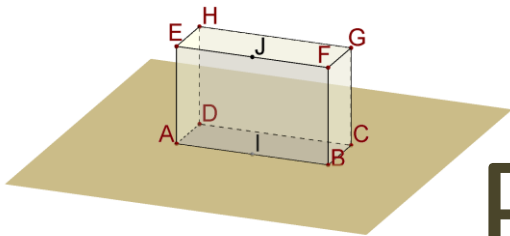
Correction

Donner le nom du solide
(ex : cube, pyramide, ...)

1) Solide ABCDEFGH

I milieu de $[AB]$

J milieu de $[EF]$

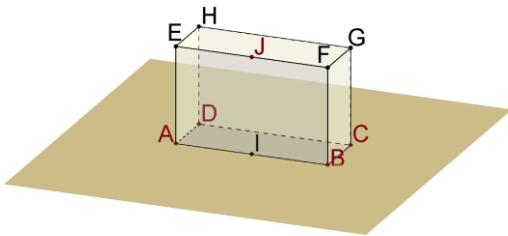


Pavé droit ou
parallélépipède rectangle

2) Solide JABCD

I milieu de $[AB]$

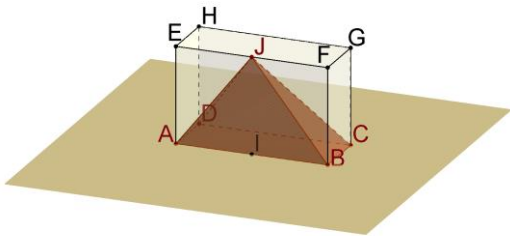
J milieu de $[EF]$



2) Solide JABCD

I milieu de $[AB]$

J milieu de $[EF]$

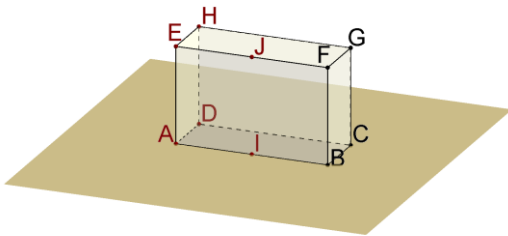


Pyramide

3) Solide JEHIAD

I milieu de $[AB]$

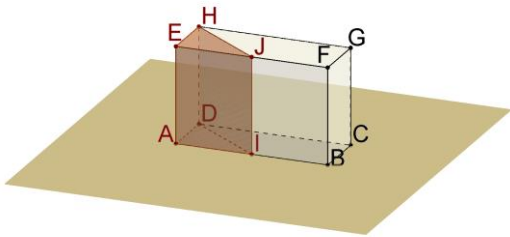
J milieu de $[EF]$



3) Solide JEHIAD

I milieu de $[AB]$

J milieu de $[EF]$

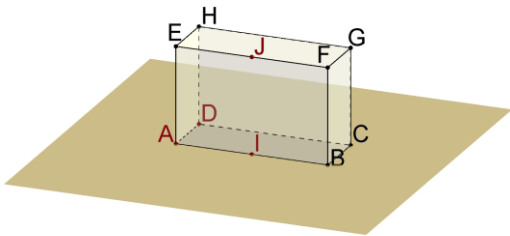


Prisme droit

4) Solide JADI

I milieu de $[AB]$

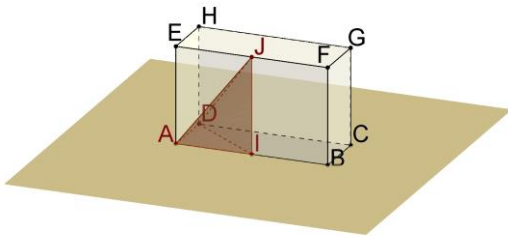
J milieu de $[EF]$



4) Solide JADI

I milieu de $[AB]$

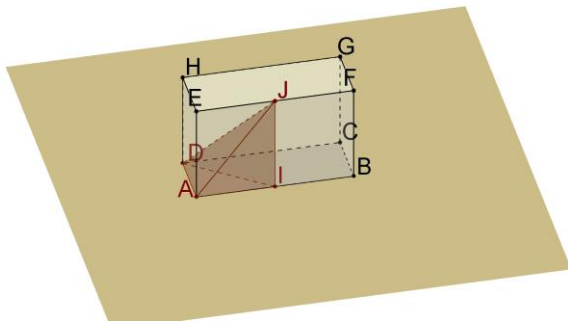
J milieu de $[EF]$



4) Solide JADI

I milieu de $[AB]$

J milieu de $[EF]$

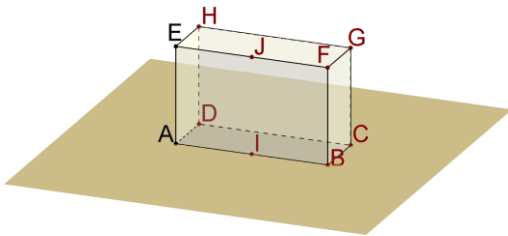


Tétraèdre

5) Solide DIBCHJFG

I milieu de $[AB]$

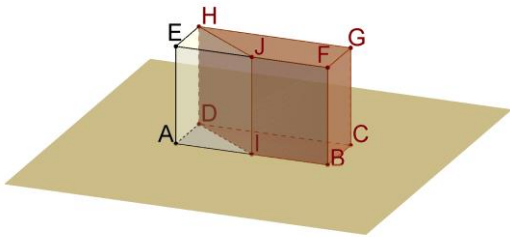
J milieu de $[EF]$



5) Solide DIBCHJFG

I milieu de $[AB]$

J milieu de $[EF]$



Prisme droit

Calculer le volume
du solide

6) Solide ABCDEFGH

I milieu de [AB]

J milieu de [EF]

Pavé droit :

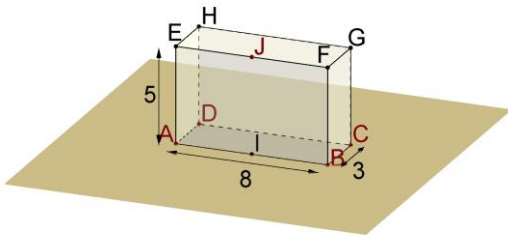
$L \times l \times H$

... 120

7) Solide JABCD

I milieu de $[AB]$

J milieu de $[EF]$



7) Solide JABCD

I milieu de [AB]

J milieu de [EF]

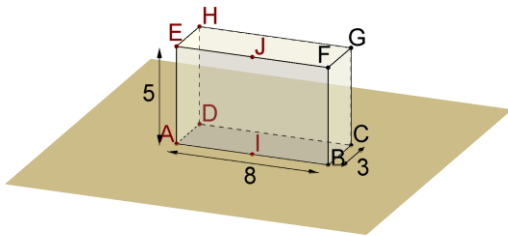
Pyramide :
 $(B \times H)/3$

... 40

8) Solide JEHIAD

I milieu de $[AB]$

J milieu de $[EF]$



8) Solide JEHIAD

I milieu de $[AB]$

J milieu de $[EF]$

Prisme :

$B \times H$

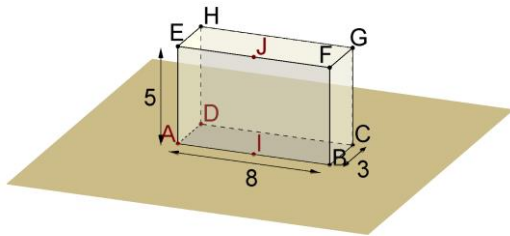
... 30

$$B = (4 \times 3) / 2$$

9) Solide JADI

I milieu de $[AB]$

J milieu de $[EF]$



9) Solide JADI

I milieu de [AB]

J milieu de [EF]

Tétraèdre :
 $(B \times H)/3$

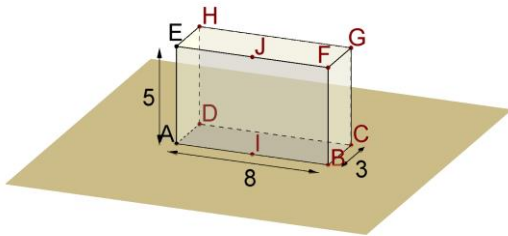
... 10

$$B = (4 \times 3)/2$$

10) Solide DIBCHJFD

I milieu de $[AB]$

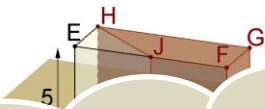
J milieu de $[EF]$



10) Solide DIBCHJFD

I milieu de [AB]

J milieu de [EF]



$V(\text{pavé}) -$
 $V(\text{JEHIAD})$

... 90

$(120 - 30)$

Fin