Université de Lorraine - Faculté de Sciences et Technologies – Département de Géosciences

Master Sciences et Technologies - Mention Sciences de la Terre et des Planètes Environnement

UE 702 Outils d'observation et d'analyse en Géosciences

Axes hélicoïdaux et miroirs translatoires

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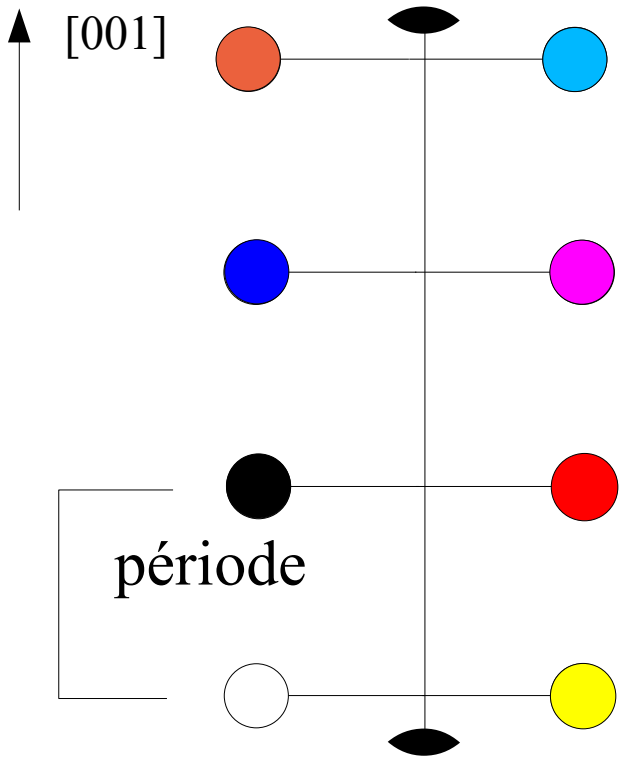
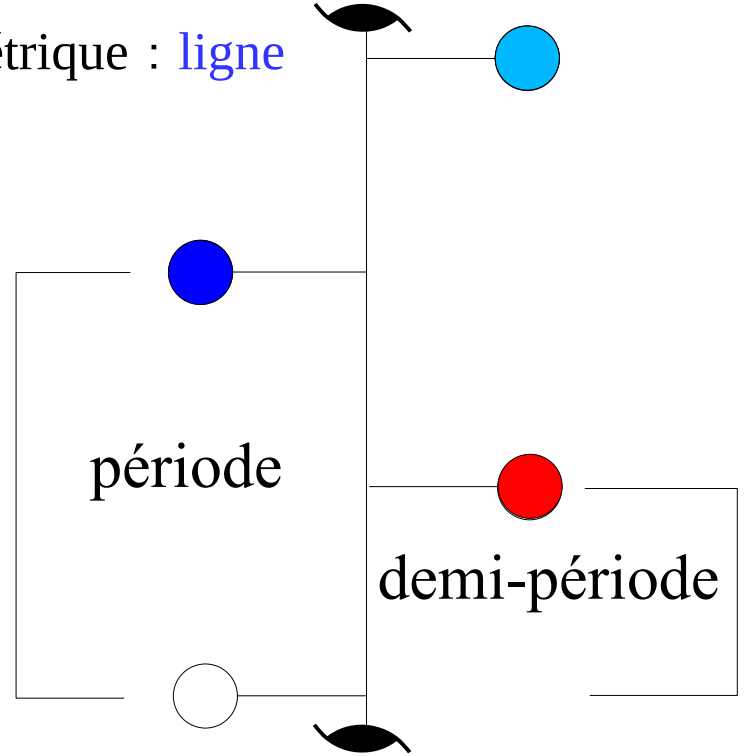
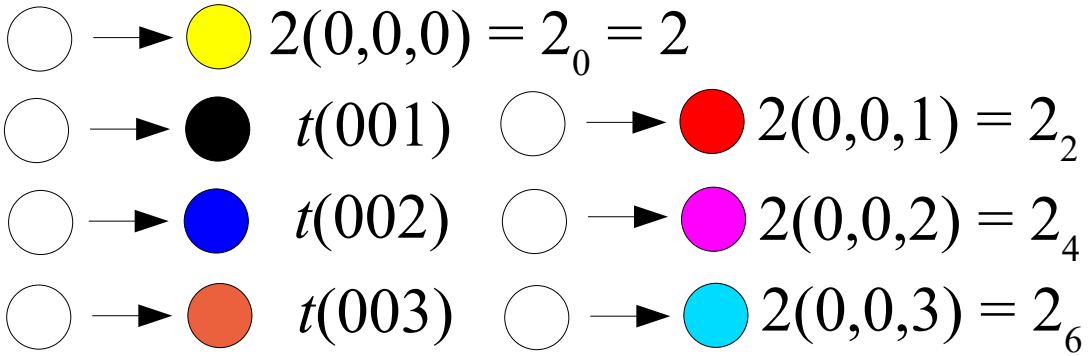
http://arche.univ-lorraine.fr/course/view.php?id=55

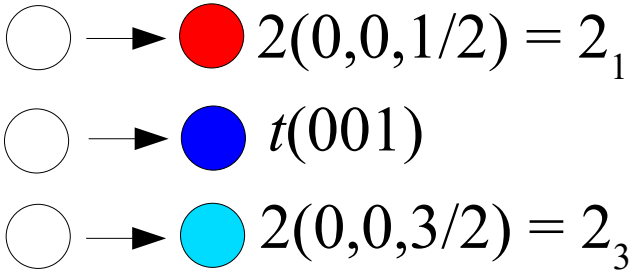
Axes hélicoïdaux n_p (composant de translation: p/n)



Élément géométrique : ligne



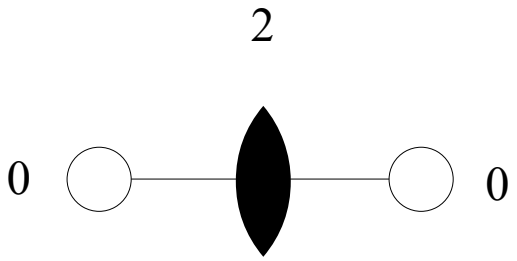


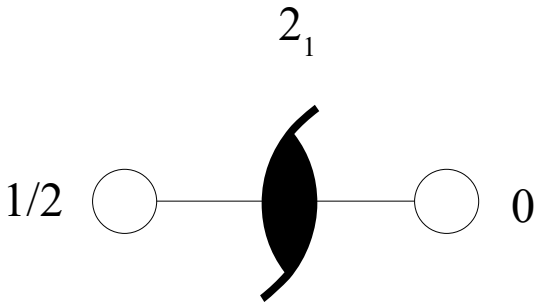


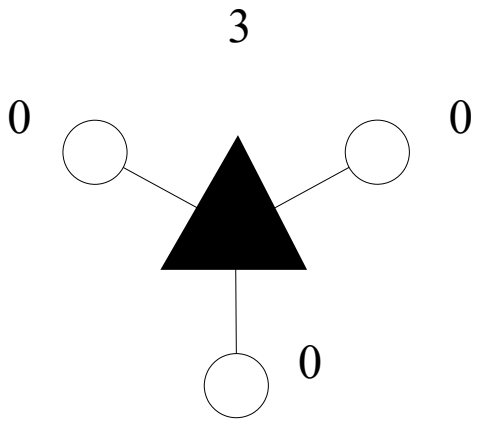
Opération représentative : rotation binaire
Élément de symétrie : axe de rotation

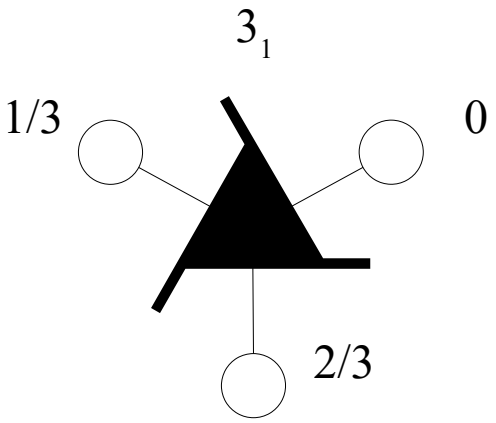
Opération représentative : rototranslation binaire
Élément de symétrie : axes hélicoïdal

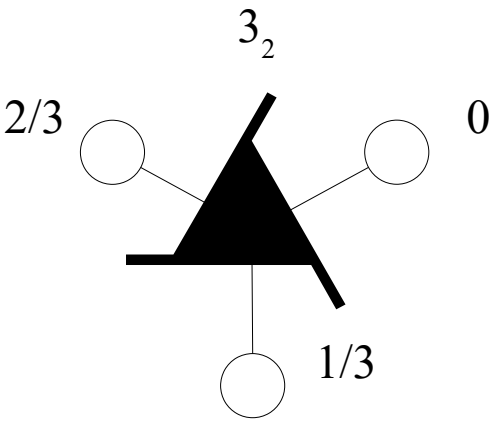
Axes hélicoïdaux



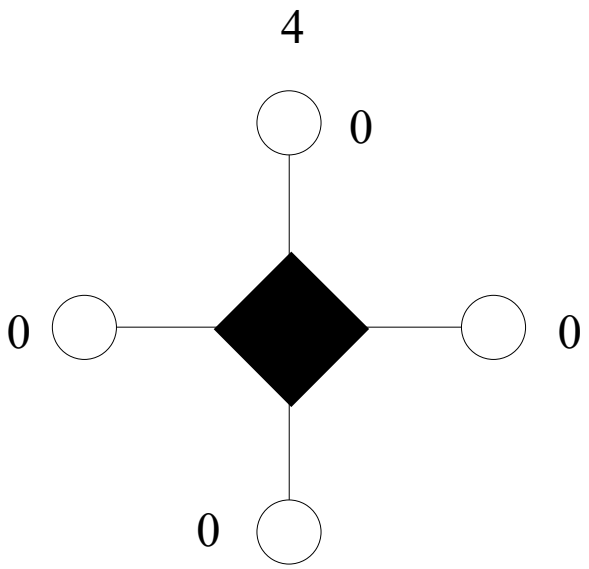


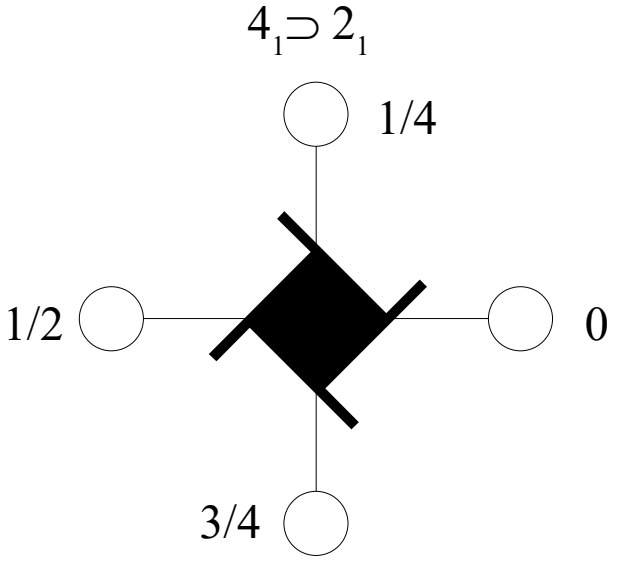


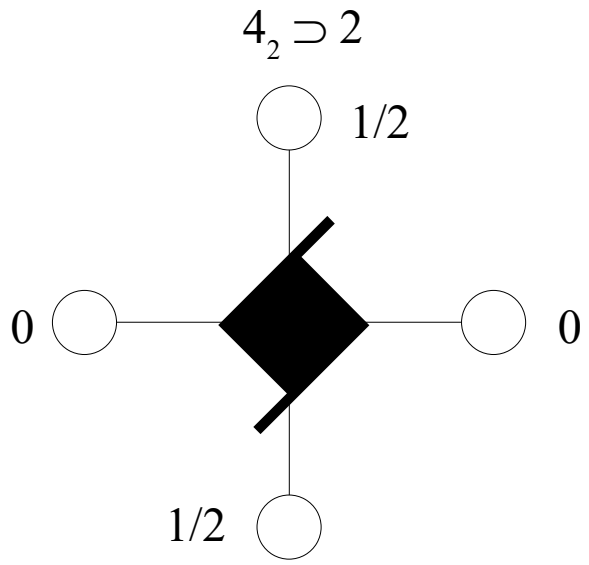


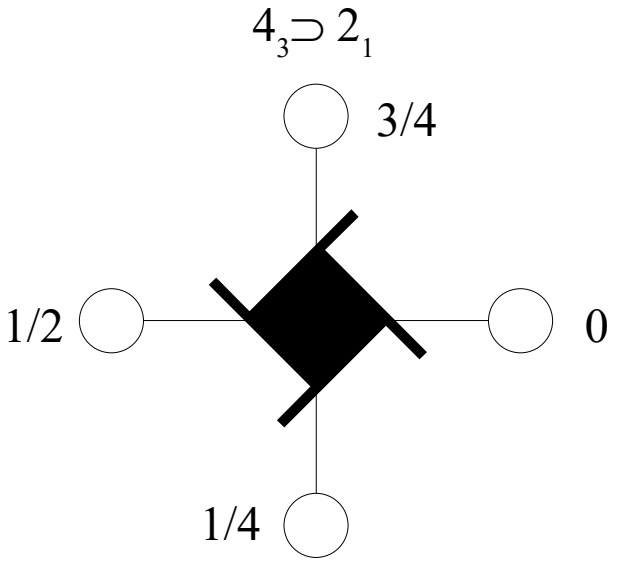


Axes hélicoïdaux



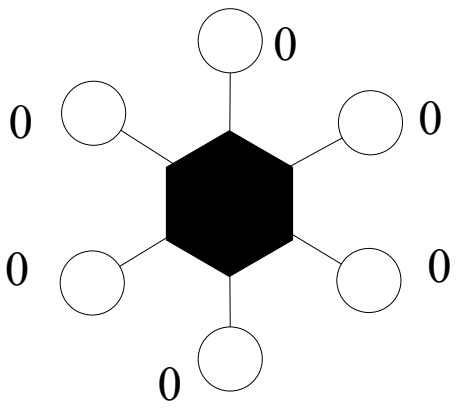




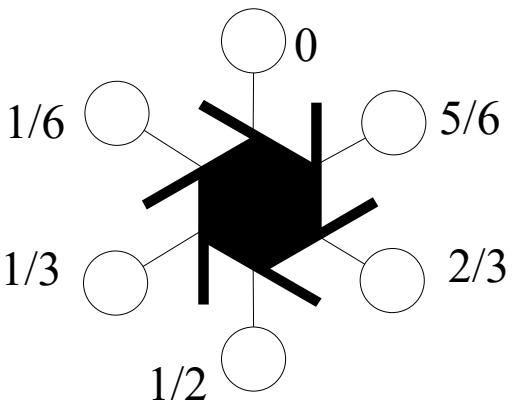


Axes hélicoïdaux

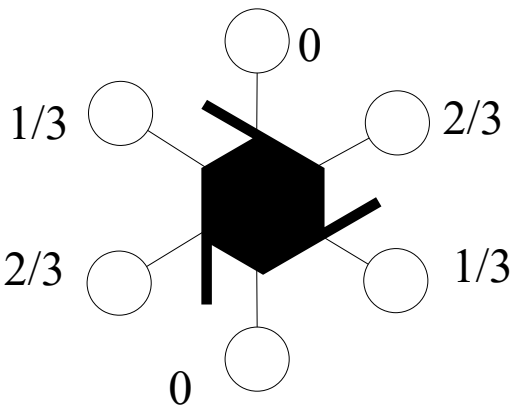
6



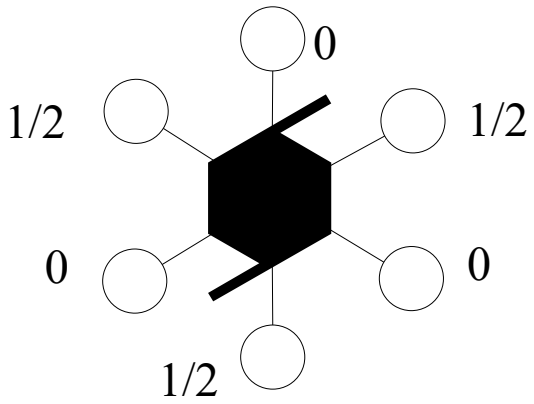
$6_1 \supset 2_1, 3_1$



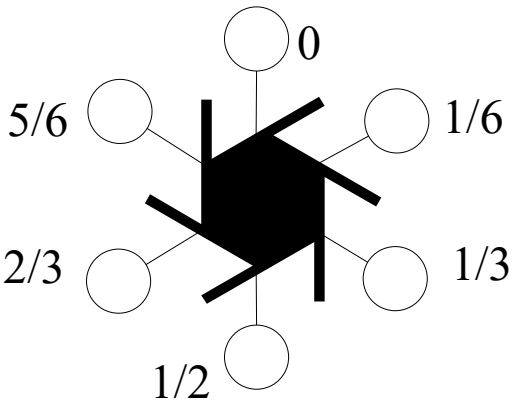
$6_2 \supset 2, 3_2$



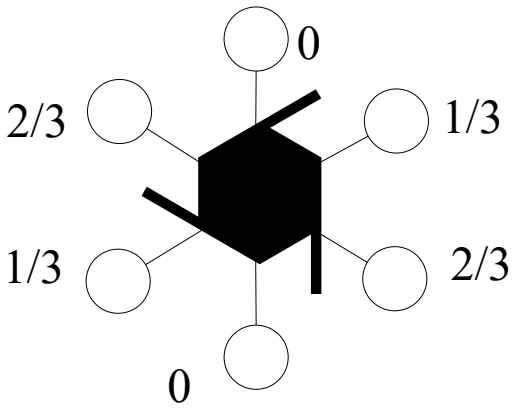
$6_3 \supset 2_1, 3$



$6_5 \supset 2_1, 3_2$



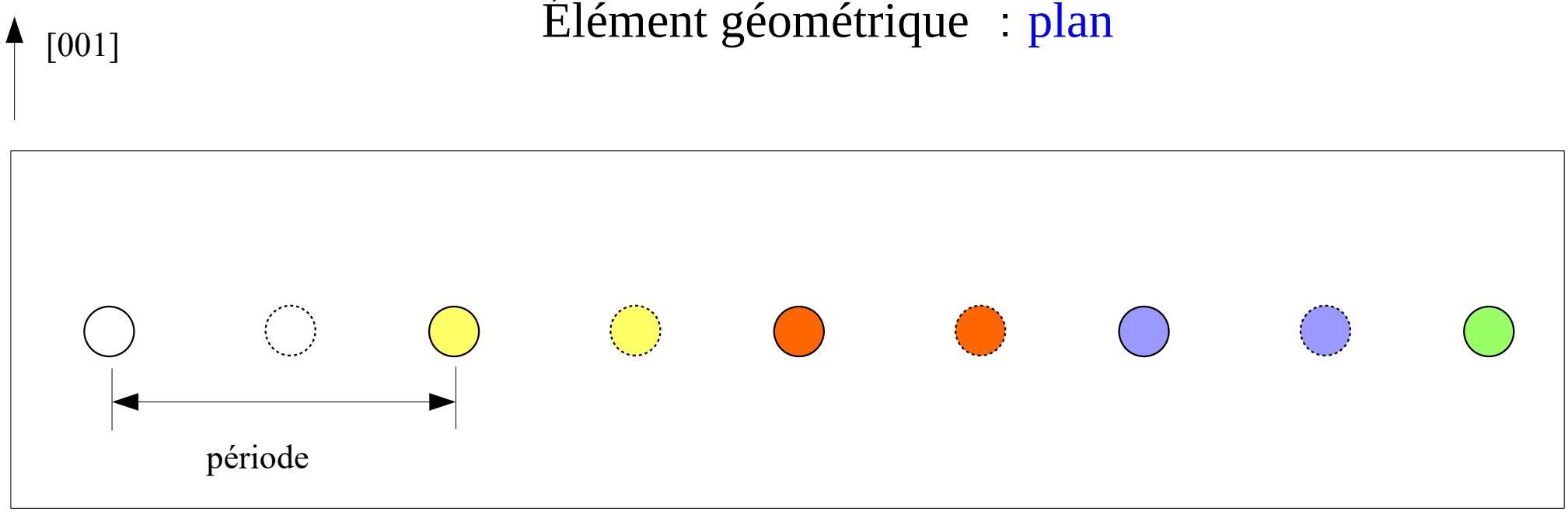
$6_4 \supset 2, 3_1$

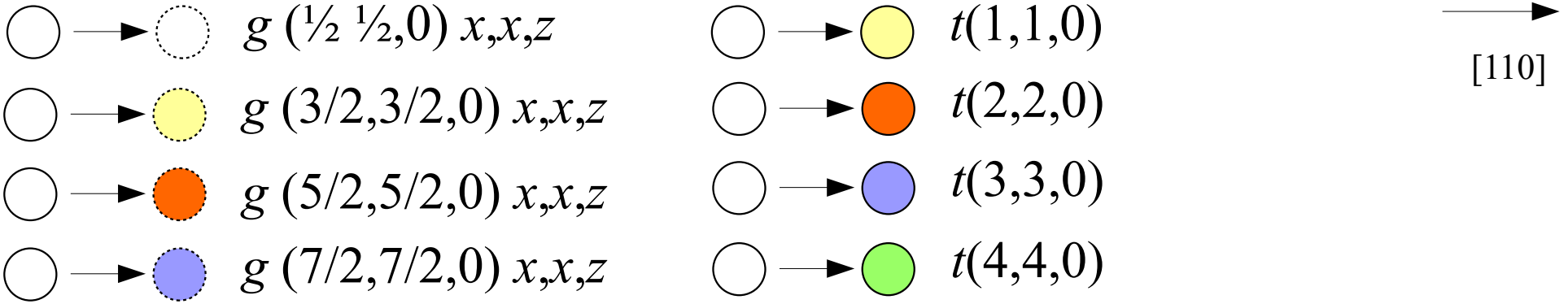


Axes hélicoïdaux

Miroirs translatoires *g*

Élément géométrique : plan

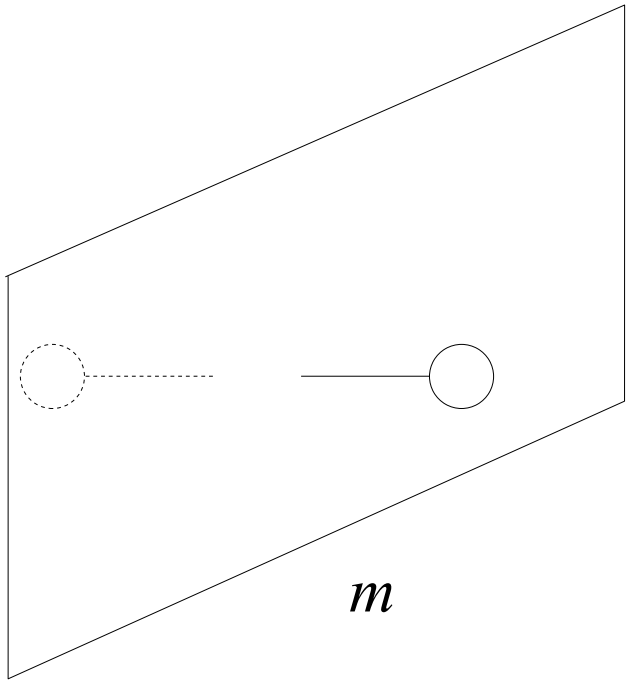


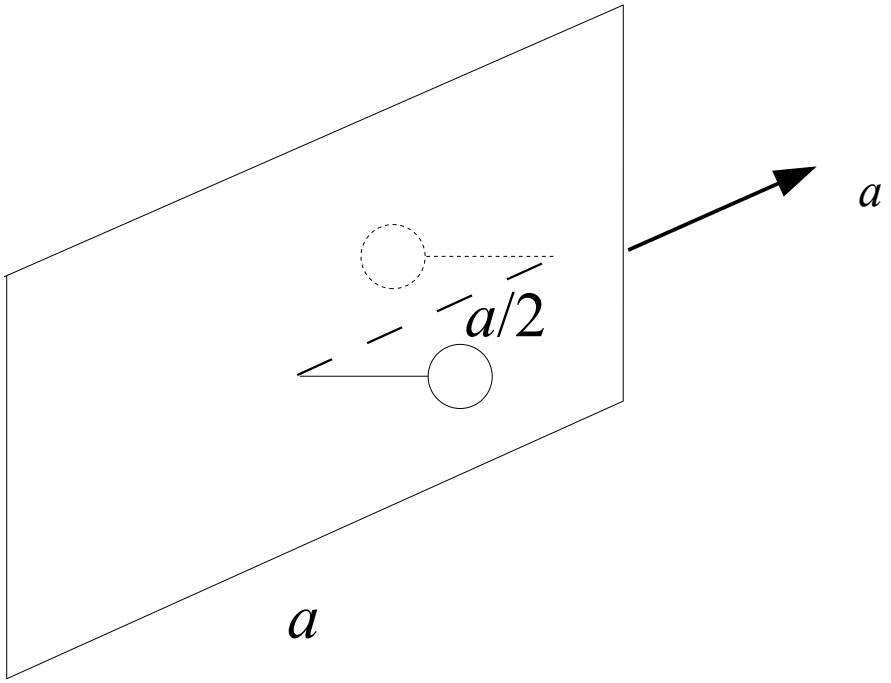


Cas particuliers

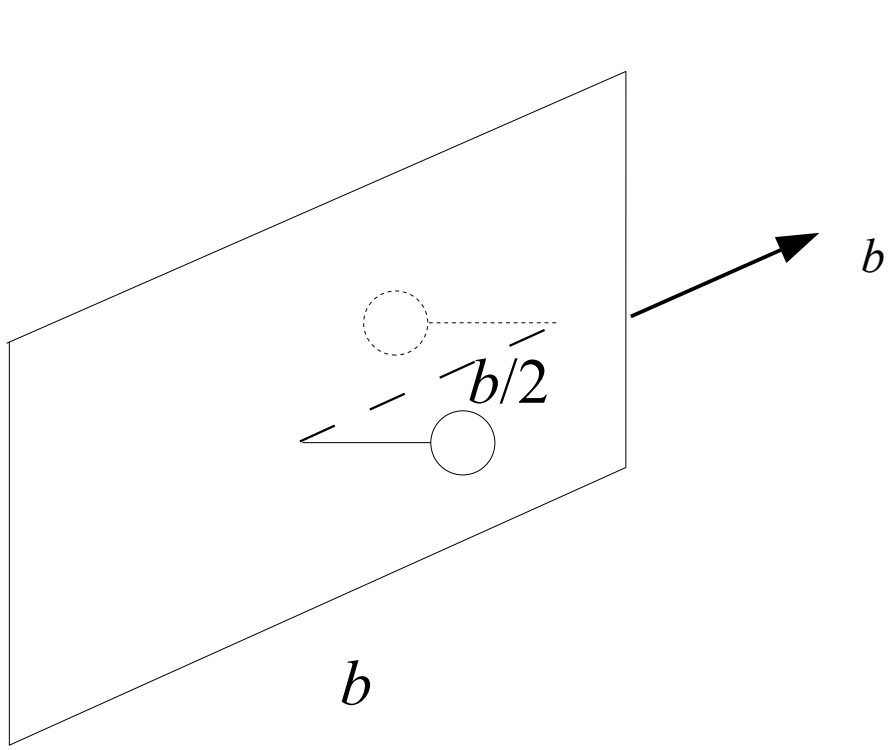
g (0,0,0): *m*
g (½,0,0): *a*
g (0,½,0): *b*
g (0,0,½): *c*
g (demi-diagonale): *n*
g (quart de diagonale): *d*

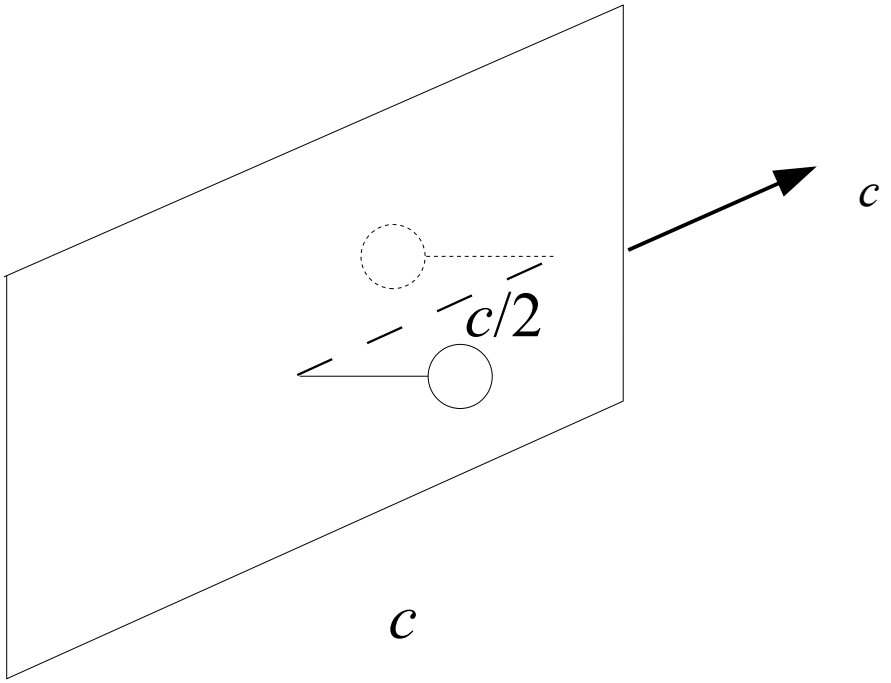
Miroirs translatoires



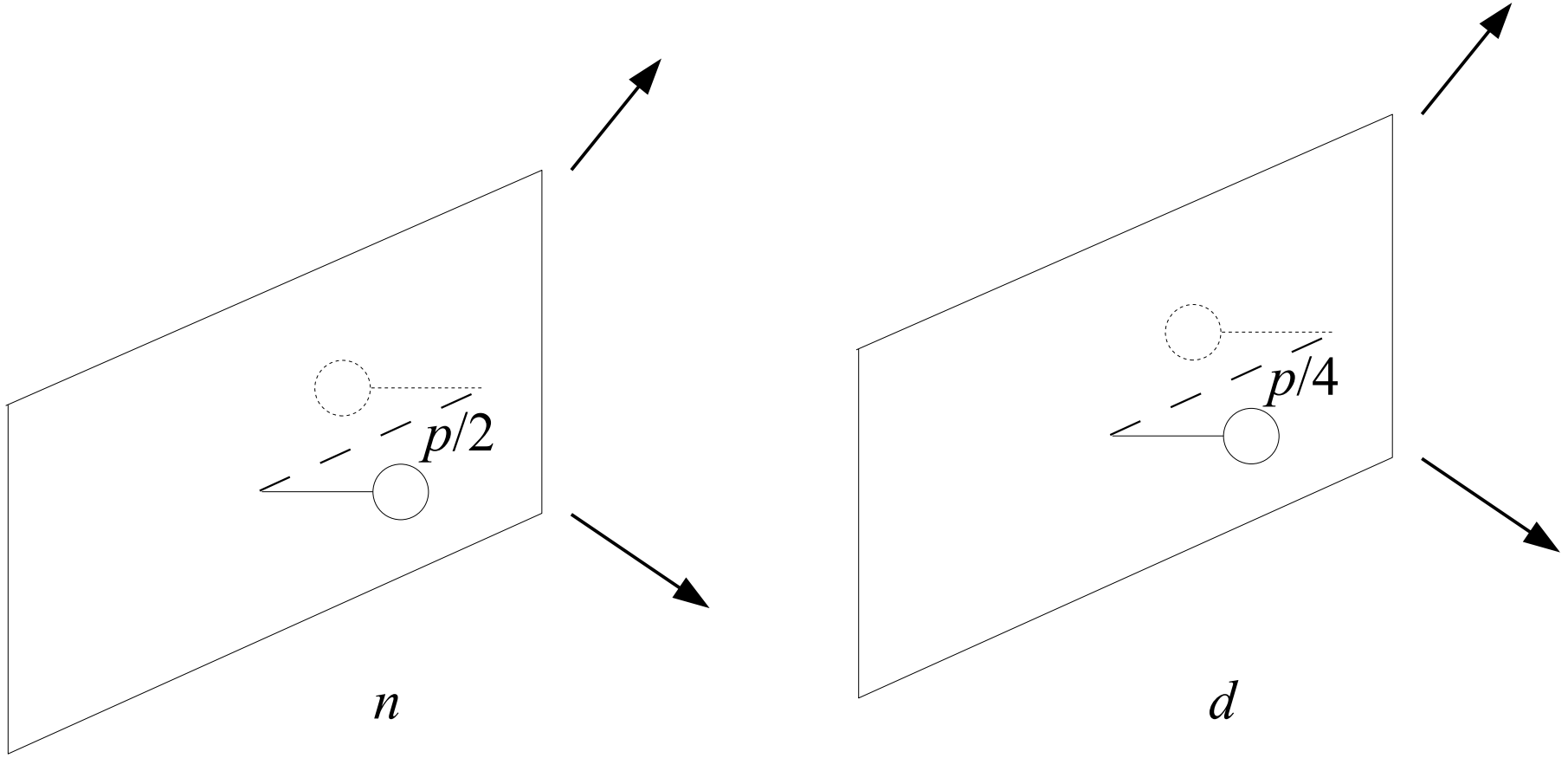


Miroirs translatoires

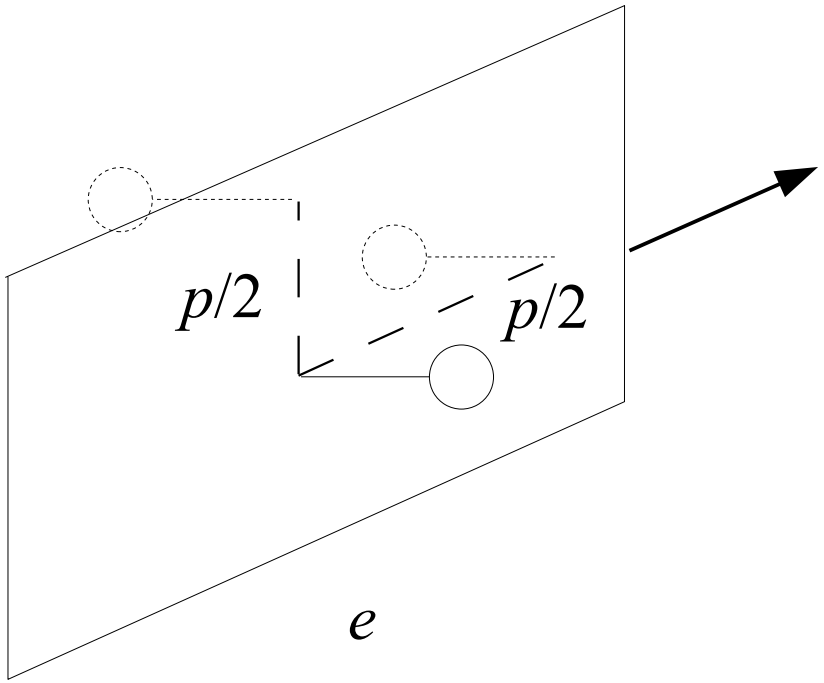




Miroirs translatoires



Miroirs translatoirrs



Comment peut-on avoir un glissement de ¼ de la période si la réflexion est une opération d'ordre 2 ?

Dans une maille centrée !

Vecteur qui centre la maille et qui a norme $p/2$