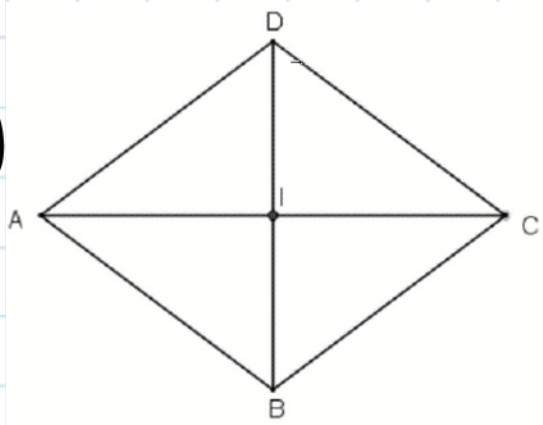
EXERCICE N°3 : 3 points 10 '

Soit ABCD un losange direct de centre I.

Montrer que $S_{(AC)} \circ S_{(BD)} = S_{(BD)} \circ S_{(AC)}$.



$S_{(Ac)} \circ S_{(BD)} = R_{(I, 2(\vec{IB}, \vec{IA}))}$

$= R_{(I, -\pi)}$

$= S_I$

$S_{(BD)} \circ S_{(Ac)} = R_{(I, 2(\vec{IA}, \vec{IB}))}$

$= R_{(I, \pi)}$

$= S_I$

1ère méthode $S_{(Ac)} \circ S_{(BD)} = S_{(BD)} \circ S_{(AC)}$

Rq : Si $\Delta \perp \Delta'$ alors $S_\Delta \circ S_{\Delta'} = S_{\Delta'} \circ S_\Delta$