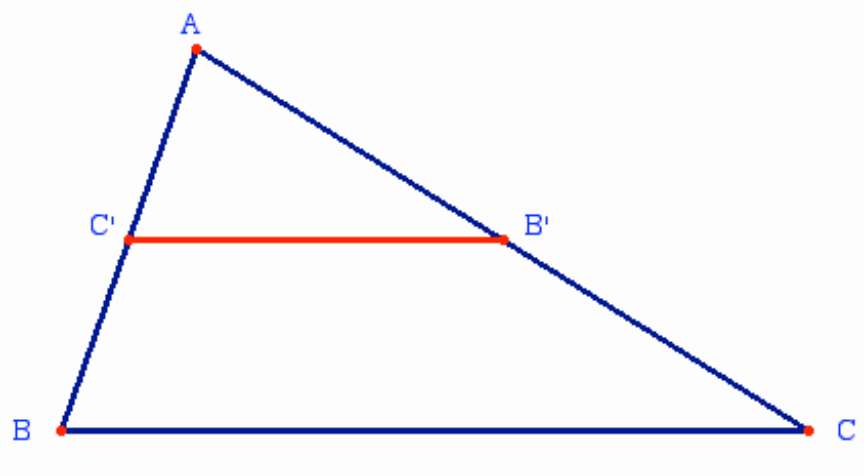
[NB this is an extension of Ass. #6 p.3 which had a typo error]

Problem (VSOP*) :** Let ABC be a normal triangle, B' the middle of AC and C' the middle of AB. We want to place 3 special points on this triangle and prove that they are on the same line.



1. Determine and place the point I defined by the vector equation : $2\overrightarrow{IC'} + \overrightarrow{IB'} = \vec{O}$
2. Determine and place the point D defined by the vector equation : $3\overrightarrow{DA} + 2\overrightarrow{DB} = \vec{O}$
3. Determine and place the point E defined by the vector equation : $2\overrightarrow{EB} + \overrightarrow{EC} = \vec{O}$
4. Prove by using a vector equation that the 3 points **A, I, E**, are on the same line.
5. Prove by using a vector equation that the 3 points **C, I, D,** are on the same line.t