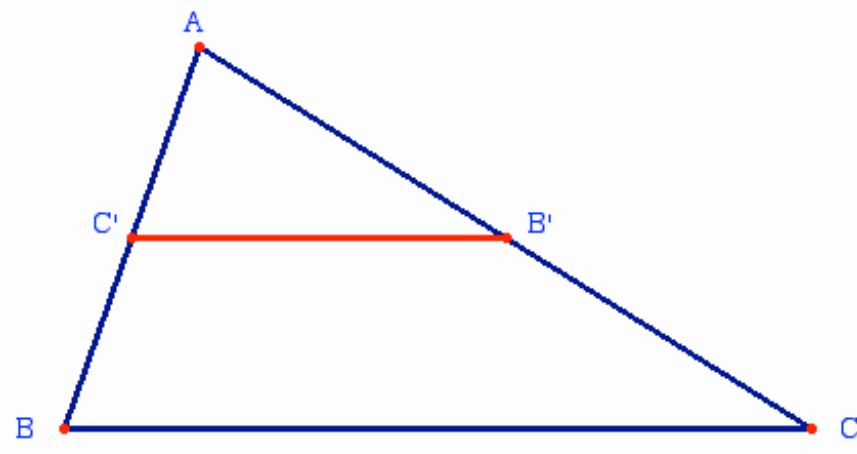


Problem (VSOP*)** : Let ABC be a normal triangle, B' the middle of AC and C' the middle of AB. We want to place 3 special points on this triangle and prove that they are on the same line.



1. Determine and place the point I defined by the vector equation : $2\overrightarrow{IC'} + \overrightarrow{IB'} = \overrightarrow{O}$
2. Determine and place the point D defined by the vector equation : $3\overrightarrow{DA} + 2\overrightarrow{DB} = \overrightarrow{O}$
3. Determine and place the point E defined by the vector equation : $2\overrightarrow{EB} + \overrightarrow{EC} = \overrightarrow{O}$
4. Prove by using a vector equation that the 3 points D, I, E, are on the same line.

Reminder (help !) to prove that the 3 points are on the same line you must prove that they match a vector equation in the form of $\overrightarrow{ID} = x\overrightarrow{IE}$ where x is a real number to be found