Polygon law of vector addition.

If a number of non-zero vectors are represented by the (n - 1) sides of an *n*-sided polygon then the resultant is given by the closing side or the n^{th} side of the polygon taken in opposite order. So,

 $\vec{R} = \vec{A} + \vec{B} + \vec{C} + \vec{D} + \vec{E}$ $\vec{OA} + \vec{AB} + \vec{BC} + \vec{CD} + \vec{DE} = \vec{OE}$

- Resultant of two unequal vectors cannot be zero.
- Resultant of three co-planar vectors may or may not be zero
- Resultant of three non-co- planar vectors cannot be zero.

