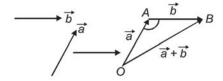
CLASS – 12 JEE – MATHS

## ADDITION COMPOSITION

Let  $\overrightarrow{a}$ ,  $\overrightarrow{b}$  be two given vectors. Take a point 0.



Let  $\overrightarrow{OA} = \overrightarrow{a}$  and  $\overrightarrow{AB} = \overrightarrow{b}$ .

So that the terminal point of the vector  $\vec{a}$  is the initial point of vector  $\vec{b}$ .

The vector  $\overrightarrow{OB}$  is called the 'sum' of vectors  $\overrightarrow{a}$  and  $\overrightarrow{b}$  and is written as

$$\vec{OB} = \vec{OA} + \vec{AB} = \vec{a} + \vec{b}$$

We have  $\vec{a} + 0 = \vec{a}$ , for every vector  $\vec{a}$ ;  $\vec{0}$ , being the zero vector.