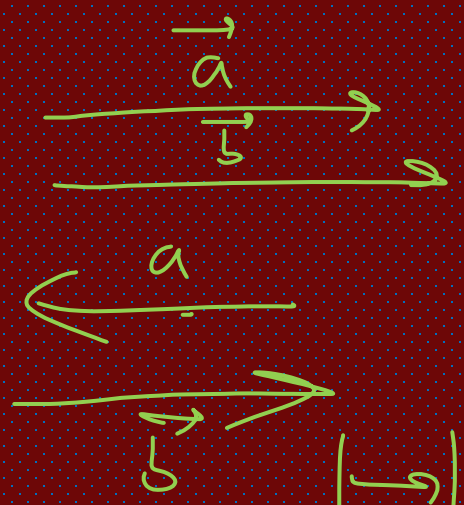
- The ratio of maximum and minimum magnitudes of the resultant of two vectors $\vec{a}\ and\ \vec{b}$ is 3 : 1. Now $|\vec{a}|$ is equal to

1. $|\vec{b}|$
2. $2|\vec{b}|$
3. $3|\vec{b}|$
4. $4|\vec{b}|$



$|\vec{a}|+|\vec{b}| \Rightarrow max$

$|\vec{a}|-|\vec{b}| \Rightarrow min$

$\frac{|\vec{a}|+|\vec{b}|}{|\vec{a}|-|\vec{b}|} = 3 \Rightarrow |\vec{a}|+|\vec{b}| = 3|\vec{a}|-3|\vec{b}|$

$2|\vec{b}| = 2|\vec{a}|$

$|\vec{a}| = 2|\vec{b}|$