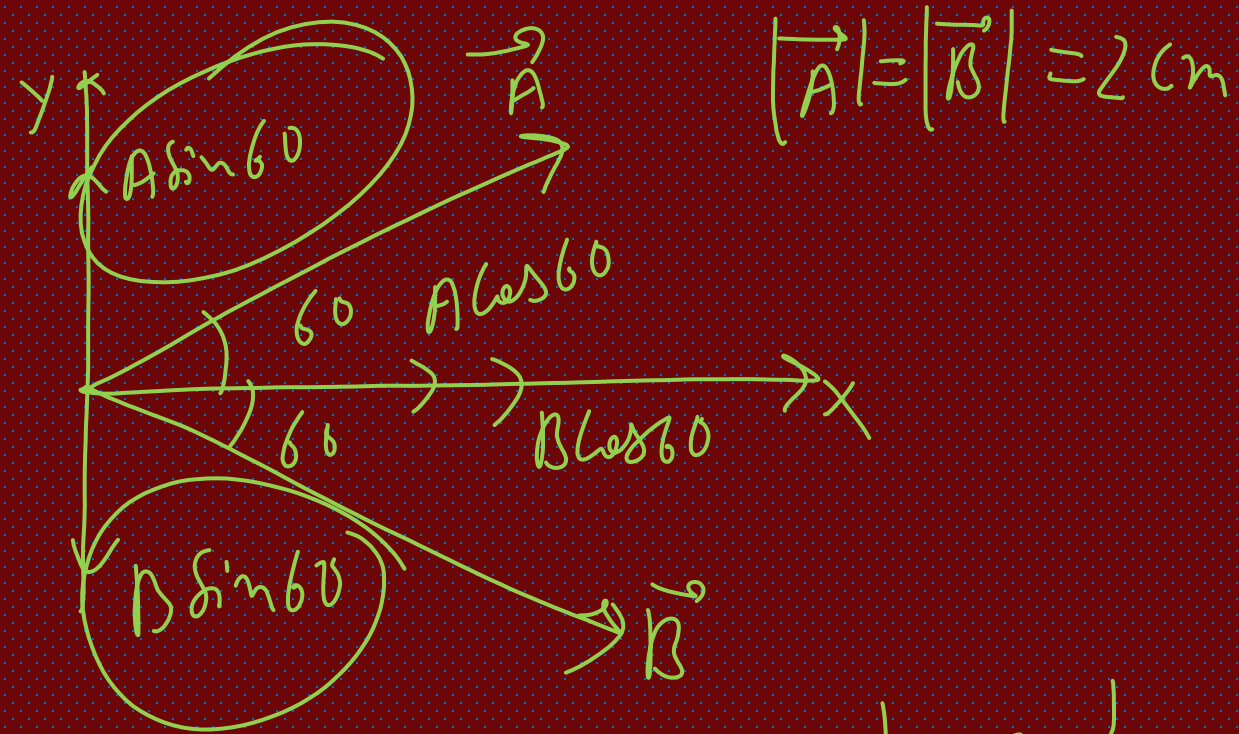


- Vector \vec{A} is 2 cm long and is 60° above the x – axis in the first quadrant. Vector \vec{B} is 2 cm long and is 60° below the x – axis in the fourth quadrant. The sum $\vec{A} + \vec{B}$ is a vector of magnitude

1. 2 cm along positive y – axis
2. 2 cm along positive x – axis
3. 2 cm along negative y – axis
4. 2 cm along negative x – axis



$$\begin{aligned}
 \text{Resultant} &= A \cos 60 + B \cos 60 = 2 \times \frac{1}{2} + 2 \times \frac{1}{2} \\
 &= 2 \text{ cm}
 \end{aligned}$$