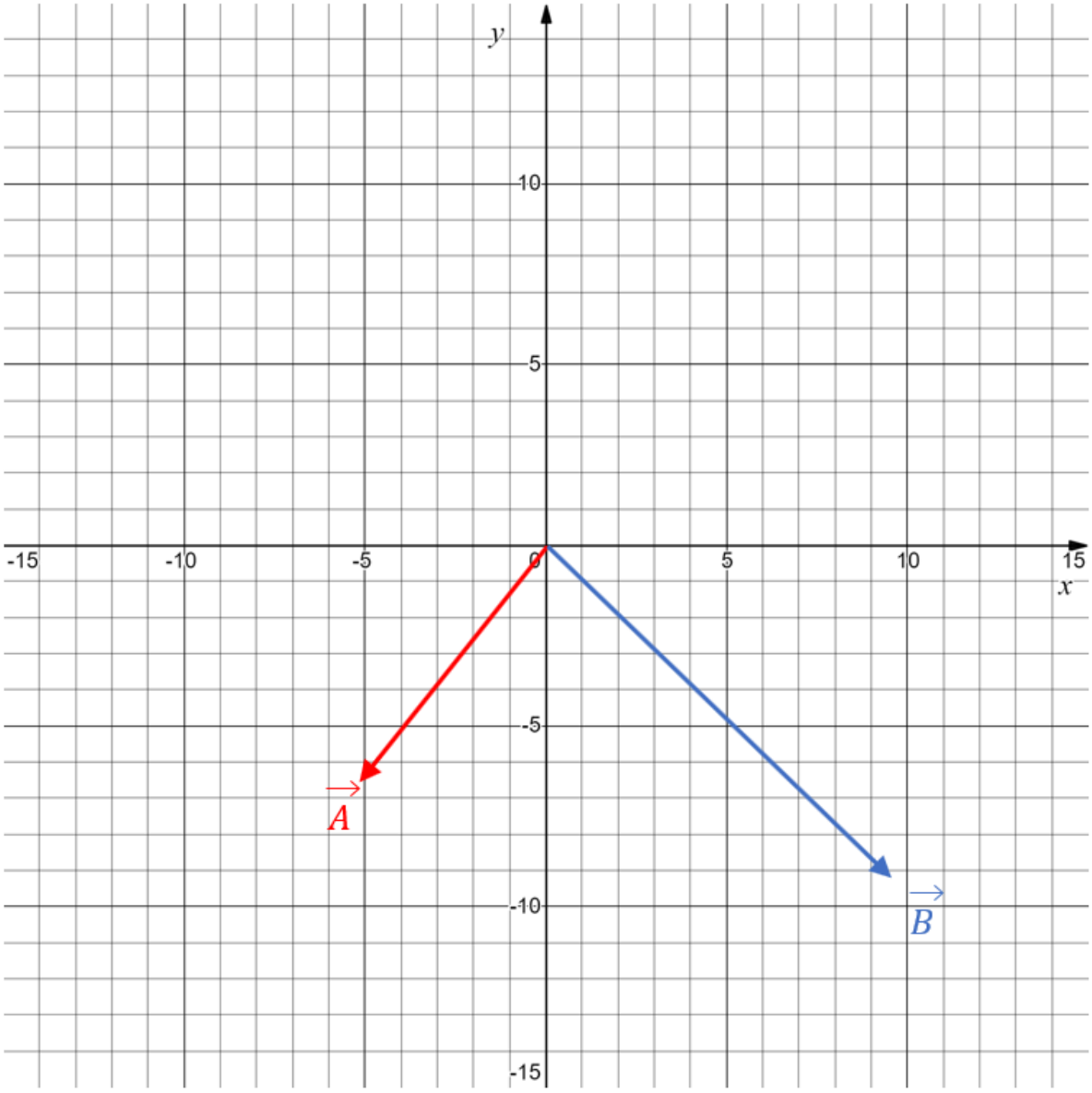
21-S-2.6-RP-01



Two vectors $\vec{A}$ and $\vec{B}$ lie on the xy - plane. If $\vec{A} = A_x\hat{i} + A_y\hat{j}$ and $\vec{B} = B_x\hat{i} + B_y\hat{j}$, find the sum of these vectors.

$\vec{R} = \Sigma\vec{V} = \vec{A} + \vec{B}$

$R_x = \Sigma V_x = A_x + B_x$

$R_y = \Sigma V_y = A_y + B_y$

$$\vec{R} = R_x\hat{i} + R_y\hat{j}$$

If $\vec{B}$ is the result of adding $\vec{A}$ with another vector $\vec{C}$, find $\vec{C}$.

$$\vec{B} = \vec{A} + \vec{C}$$
$$\Rightarrow \vec{C} = \vec{B} - \vec{A}$$

$$\vec{C} = (B_x - A_x)\hat{i} + (B_y - A_y)\hat{j}$$