

■ **A. Distance. Compute the distance between the points.**

- [1] $\{-5, 2\}, \{3, -4\}, 10$
- [2] $\{0, 3\}, \{-2, 4\}$
- [3] $\{2, 1\}, \{3, 5\}$
- [4] $\{-1, -1\}, \{1, 1\}$
- [5] $\{2, -\pi\}, \{2, -1\}$
- [6] $\{\frac{1}{5}, 3\}, \{\frac{2}{5}, 2\}$
- [7] $\{-\frac{\pi}{2}, 0\}, \{0, \frac{\pi}{2}\}$

■ **B. Answer the following**

- [1] What is the midpoint of AB for $A(2, 6), B(-5, 4)$.
- [2] If $(\frac{-1}{2}, \frac{13}{2})$ is the midpoint of AB and point A is $(-2, 5)$, what are the coordinates of point B?
- [3] ABCD is a rectangle. Let $A(7, 2)$ and the midpoint of AC be $M(11, 6)$. What are the coordinates its vertices?
- [4] Find the coordinates of the point symmetric to $(-3, -5)$ with respect to $(\frac{-1}{2}, 2)$.
- [5] Find the point on the y-axis that is equidistant from $A(2, 4)$ and $B(5, 3)$.
- [6] Find the midpoint of the line segment whose endpoints are the points of intersection of the lines $y = -3x - 10$ and $y = 2x + 5$ with the x-axis.