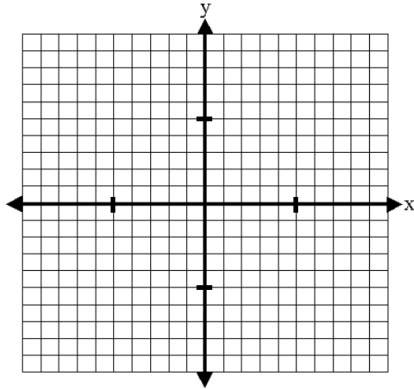
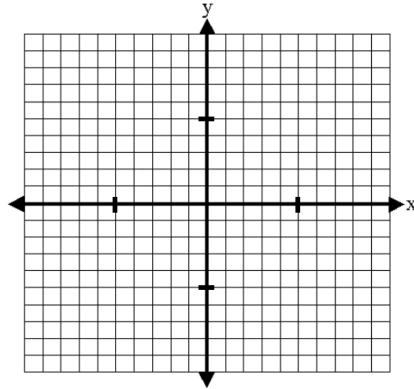


Find the ordered pair that represents the vector from A to B. Then find the magnitude of \overline{AB} .

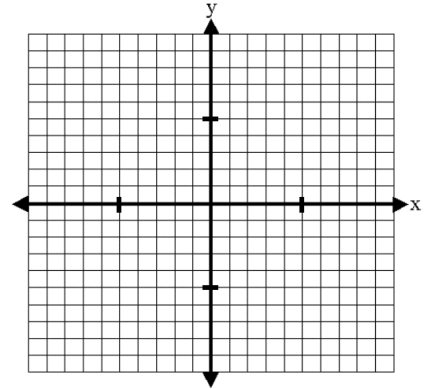
1. $A(2,4), B(-1,3)$



2. $A(4,-2), B(5,-5)$

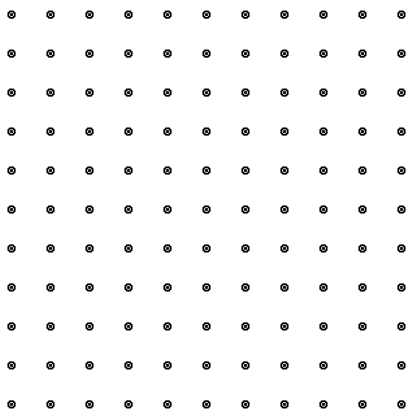


3. $A(-3,-6), B(8,-1)$

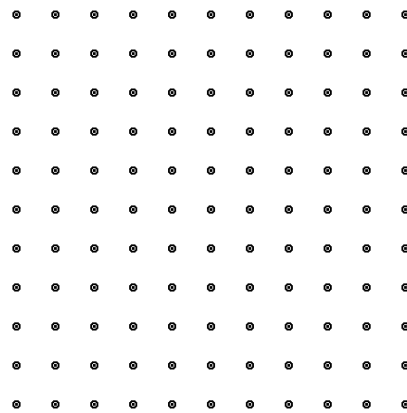


Find an ordered pair to represent \vec{u} in each equation if $\vec{v} = \langle 2, -1 \rangle$ and $\vec{w} = \langle -3, 5 \rangle$.

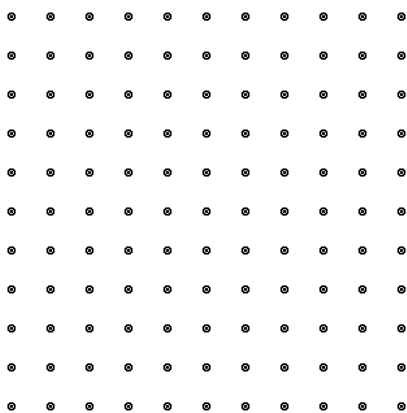
4. $\vec{u} = 3\vec{v}$



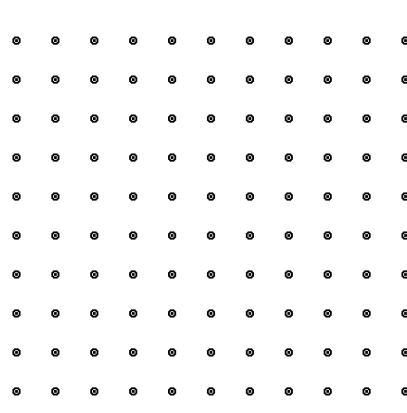
5. $\vec{u} = \vec{w} - 2\vec{v}$



6. $\vec{u} = 2\vec{v} + 2\vec{w}$



7. $\vec{u} = \vec{v} - \vec{w}$



8. Mrs. Mathews and Mrs. Peto are lifting a bird bath and moving it to a new location in Mrs. Mathews' garden. Mrs. Peto is pushing the bird bath with a force of 120 newtons (N) at a 60° angle with the horizontal while Mrs. Mathews is pulling the bird bath with a force of 180 newtons at a 40° angle with the horizontal. What is the magnitude of the combined force they exert on the bird bath?

