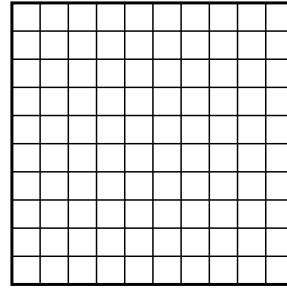
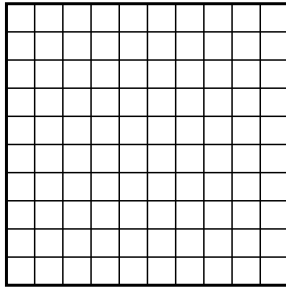

PHYS 1110 Group Work Sheet 3
Working with vectors

With your group, discuss how to answer these questions and write your group answer in the space provided.

Vector \vec{A} can be expressed in (x, y) components as $\vec{A} = (2.00 \text{ m/s}, 5.00 \text{ m/s})$. Vector $\vec{B} = (1.00 \text{ m/s}, -3.00 \text{ m/s})$.

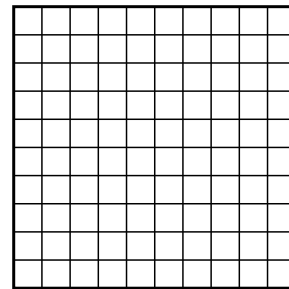
1. Draw vectors \vec{A} and \vec{B} in the grid.
2. Graphically add $\vec{A} + \vec{B}$ in the grid.



3. Find $\vec{A} + \vec{B}$ by adding the components together.

4. Find $\vec{A} - \vec{B}$ by adding the components together. (If $\vec{A} - \vec{B} = \vec{C}$, then $\vec{C} + \vec{B} = \vec{A}$.)

5. Graphically subtract $\vec{A} - \vec{B}$ to find $\vec{C} = \vec{A} - \vec{B}$.



6. Carry out the scalar multiplications below.

a. $\vec{A} \cdot 3.00 \text{ s}$

b. $\vec{B} \cdot 3.00 \text{ s}$

c. $\vec{C} \cdot 3.00 \text{ s}$