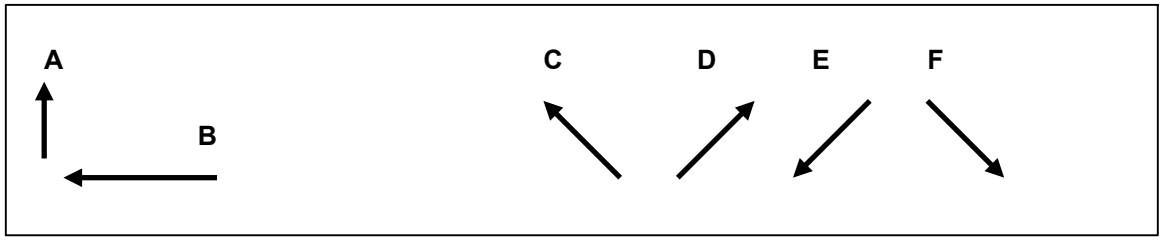
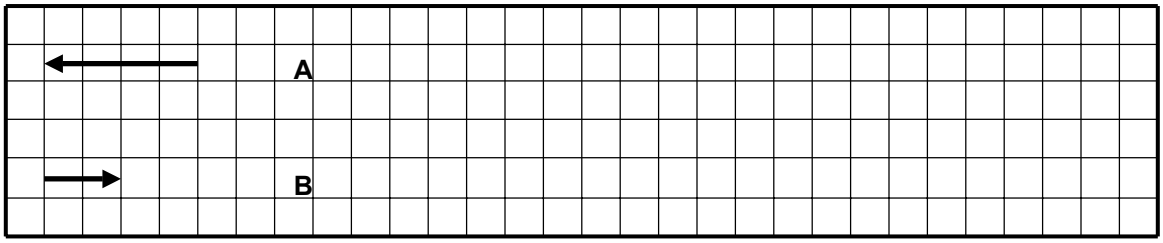
Vector Exercise

1. Below are shown vectors $\vec{A}$ and $\vec{B}$. Consider $\vec{R}$, the vector sum (the "resultant") of $\vec{A}$ and $\vec{B}$, where $\vec{R} = \vec{A} + \vec{B}$. Which of the four other vectors shown ($\vec{C}, \vec{D}, \vec{E}, \vec{F}$) has most nearly the ***same direction*** as $\vec{R}$?



Answer_____

2. In the space to the right, draw $\vec{R}$ where $\vec{R} = \vec{A} + \vec{B}$. Clearly label it as the vector $\vec{R}$. Explain your work.



Answer_____

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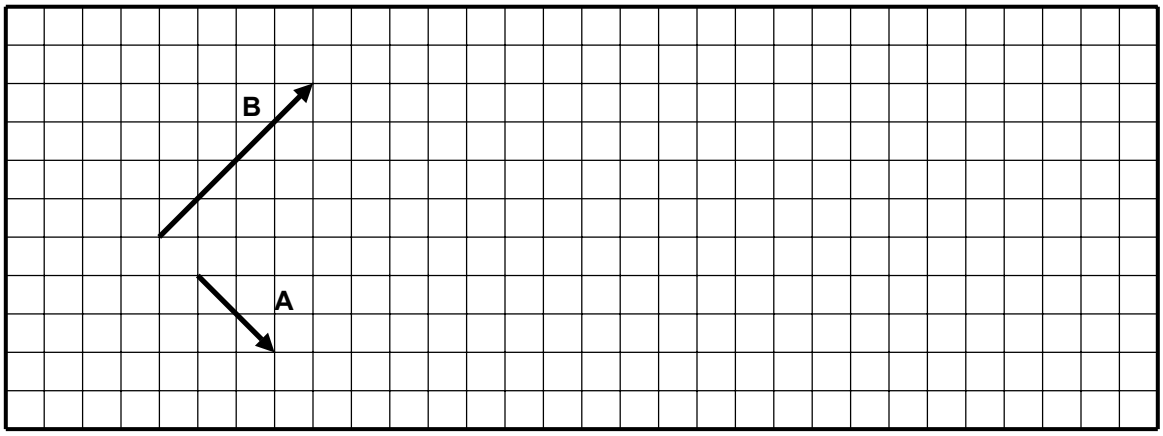
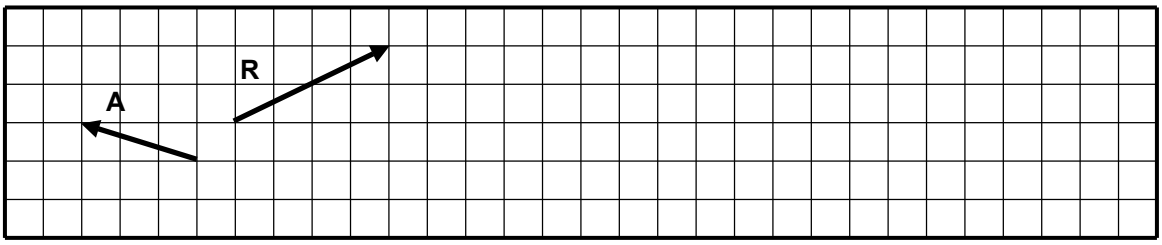
3. In the figure below there are two vectors $\vec{A}$ and $\vec{B}$. Draw a vector $\vec{R}$ that is the sum of the two, (i.e. $\vec{R} = \vec{A} + \vec{B}$). Clearly label the resultant vector as $\vec{R}$.



Vector Exercise

4. In the figure below, a vector $\vec{\mathbf{R}}$ is shown that is the ***net resultant*** of two other vectors $\vec{\mathbf{A}}$ and $\vec{\mathbf{B}}$ (i.e. $\vec{\mathbf{R}} = \vec{\mathbf{A}} + \vec{\mathbf{B}}$). Vector $\vec{\mathbf{A}}$ is given. Find the vector $\vec{\mathbf{B}}$ that when added to $\vec{\mathbf{A}}$ produces $\vec{\mathbf{R}}$; clearly label it $\vec{\mathbf{B}}$. **DO NOT** try to combine or add $\vec{\mathbf{A}}$ and $\vec{\mathbf{R}}$ directly together!!! Briefly explain your answer.



Answer_____

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5. In the figure below are given three vectors $\vec{\mathbf{1}}$, $\vec{\mathbf{2}}$, and $\vec{\mathbf{3}}$. There exists a resultant sum, $\vec{\mathbf{R}}$, of the vector addition of the three component vectors (i.e., $\vec{\mathbf{R}} = \vec{\mathbf{1}} + \vec{\mathbf{2}} + \vec{\mathbf{3}}$). In the grid below, draw the resultant vector $\vec{\mathbf{R}}$.