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## Experiment 3 - Vector Addition

## Lab Meets

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1. What is the objective of this experiment?
2. What is an equilibrant?
3. How does the force table apparatus work?
4. What is a vector?
5. Add the given vectors by the component method, by completing the table below. Show all work (i.e., all calculations). What is the angle of the resultant vector with respect to the $x$ axis? Use the back of this sheet if necessary.
$\mathbf{A}=8.0 \mathrm{~N}$ at $235, \mathbf{B}=3 \mathrm{~N}$ at $105^{\circ}, \mathbf{C}=5 \mathrm{~N}$ at $45^{\circ}$

| Vector | $\mathbf{x}$ component (N) | y-component (N) |
| :---: | :--- | :--- |
| $\mathbf{A}$ |  |  |
| $\mathbf{B}$ |  |  |
| $\mathbf{C}$ |  |  |
| $\mathbf{A}+\mathbf{B}+\mathbf{C}$ |  |  |

