## QUESTIONS TO HAND IN - EXPERIMENT 5

NAME
LAB INSTRUCTOR LAB DAY/TIME $\qquad$

1. A force of 5 newtons is applied at an angle of $30^{\circ}$. Find the $x$ - and $y$-components of this force.
2. Two forces $\boldsymbol{A}$ and $\boldsymbol{B}$ have magnitudes of 5 N and 10 N , respectively. What is the magnitude and direction of their sum when they both lie along the same direction?
3. Using the same two vectors as in problem 2 above, what is the magnitude and direction of their sum when $\boldsymbol{A}$ is oriented at $0^{\circ}$ and $\boldsymbol{B}$ is oriented at $180^{\circ}$ ?
4. Using the same two vectors as in problem 2 above, what is the magnitude and direction of their sum if $\boldsymbol{A}$ is oriented at $0^{\circ}$ and $\boldsymbol{B}$ is oriented at $90^{\circ}$ ?
5. What is the difference between $\boldsymbol{A}$ and $\boldsymbol{B}$ (the vector $\boldsymbol{A}-\boldsymbol{B}$ ), when they are both oriented in the same direction?
