

Intro to Mechanical  
Homework 1  
Assigned: 1/24/14, Due: 1/31/14

1. What is the resultant from adding  $\vec{A}=2\hat{i}+3\hat{j}$  and  $\vec{B}=1\hat{i}+2\hat{j}$  ? Draw  $\vec{A}$  ,  $\vec{B}$  , and the resultant.
2. What is the resultant from adding  $\vec{A}=2\hat{i}+3\hat{j}+4\hat{k}$  and  $\vec{B}=1\hat{i}+2\hat{j}+3\hat{k}$  ? What is  $\vec{A}\cdot\vec{B}$  ?  
What is  $\vec{A}\times\vec{B}$  (use the method of co-factors)?
3. What is the resultant from adding  $\vec{A}=-2\hat{i}+5\hat{j}+1\hat{k}$  and  $\vec{B}=-7\hat{i}+5\hat{j}+8\hat{k}$  ? What is  $\vec{A}\cdot\vec{B}$  ?  
What is  $\vec{A}\times\vec{B}$  (use the method of co-factors)?
4. What is the resultant from adding  $\vec{A}=3\hat{i}+3\hat{j}+3\hat{k}$  and  $\vec{B}=1\hat{i}+2\hat{j}+3\hat{k}$  ? What is  $\vec{A}\cdot\vec{B}$  ?  
What is  $\vec{A}\times\vec{B}$  (use the method of co-factors)?