

Name:	
ID:	
Total Score (out of 10 pts):	

**-4/10 points for attending- so make sure you put your name!**

### Question 1 (3/10 points)

What is the difference between accuracy and precision? Please be as concise as possible!

#### Solution 1

*Accuracy defines difference from the actual value of the quantity being measured while precision defines the certainty in a measurement. A measurement can be precise but not necessarily accurate.*

### Question 2 (3/10 points)

Please add the following vectors and write the resultant vector  $\vec{R}$  ( $\hat{i}$ ,  $\hat{j}$  and  $\hat{k}$  denotes unit vectors along x, y and z directions, respectively) :

$$\vec{A} = 5\hat{i} + 3\hat{j} + 2\hat{k} \text{ and } \vec{B} = 2\hat{i} + 2\hat{j} + 3\hat{k}$$

#### Solution 2

$$\vec{R} = \vec{A} + \vec{B} = (5 + 2)\hat{i} + (3 + 2)\hat{j} + (2 + 3)\hat{k} = 7\hat{i} + 5\hat{j} + 5\hat{k}$$