

# Lab 7: Spirometry

## 1. Measuring Respiratory Volumes

**Subject TV IRV ERV VC TV+IRV+ERV**

## 2. Estimating Vital Capacity

**Subject VC estimate method 1 VC estimate method 2 VC measured**

## 3. Why do the values not match precisely?

## 4. Lung Ventilation

<b>Subject</b>	<b>Breathing Rate</b>	<b>TV</b>	<b>RMV</b>	<b>PV</b>
	<b>[breath / min]</b>	<b>[L / breath]</b>	<b>[L / min]</b>	<b>[L / min]</b>

## 5. How much air does a person approximately expire per hour? per day? per week? per year?

## 6. Absorption and excretion of gases: You are locked in an airtight room that is 8 ft by 8 ft by 8 ft, i.e. has a volume of about 14' liter. Wow much oxygen is it this room?

## 7. How long would it take you to consume all the oxygen in the room?

## 8. Given an average life expectancy of 78 years , how many tons of carbon dioxide do you exhale over your life time?