# **Lab 11: lung capacities and volumes**

## **Post-lab report (15 PTS)**

Name(s): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Normal Breathing at Rest and After Exercise**

1. (2 points) Why is not possible to calculate total lung volume from the resting breathing data?
2. (2 points) In what direction (increase, decrease, or no change) did exercise influence the following parameters?

* Tidal volume:
* Vital Capacity:
* Time taken for a breathing cycle:
* Rate of air flow during the inhalation phase

1. (2 points) How can you account for the change in the rate of air flow during inhalation, after exercise?
2. (2 points) Among different age groups, genders, and health groups, which group(s) has the highest Tidal Volume? Why?

5. (7 points) You spend the entire semester exploring physiology. Your group need to come with a task with a novel question to explore respiration. (for example: how respiration change with a particular type of exercise, how respiration change with body position……) Graph and explain your results.