Evaluate

Name_____ Class_____ Date_____

Answer the following questions completely and concisely.

1. How is heart rate recovery measured? Why is heart rate recovery an indicator of cardiovascular health and fitness?

2. How does individual cardiovascular health affect overall population and community health?

3. Recall the Sinharay et. al. study featured in the explore activity: *How does exposure to particulate air pollution affect the cardiovascular system?* This study used pulse wave velocity as an indicator of the effect of exposure to air particulates on the cardiovascular system. The study also used another factor, augmentation index, to measure possible cardiovascular system response. As with pulse wave velocity, higher augmentation index values indicate decreased cardiovascular fitness. The following augmentation index data was collected for the healthy volunteer group:

Table 1: Average percentage change in augmentation index on Oxford Street vs. Hyde Park

Group	Location	2 hrs. Prior	End of walk, 2 hrs. after start	4 hrs. after start	6 hrs. after start	26 hrs after start
Healthy	Oxford St.	0	-3	-2	-3	+4
	Hyde Park	0	-24	-17	-15	-10

Does this data corroborate, refute, or provide no basis for a conclusion when compared to the pulse wave velocity data featured in the explore activity? Defend your answer.

<u>Teacher Comments:</u>