

# Heart Physiology Worksheet

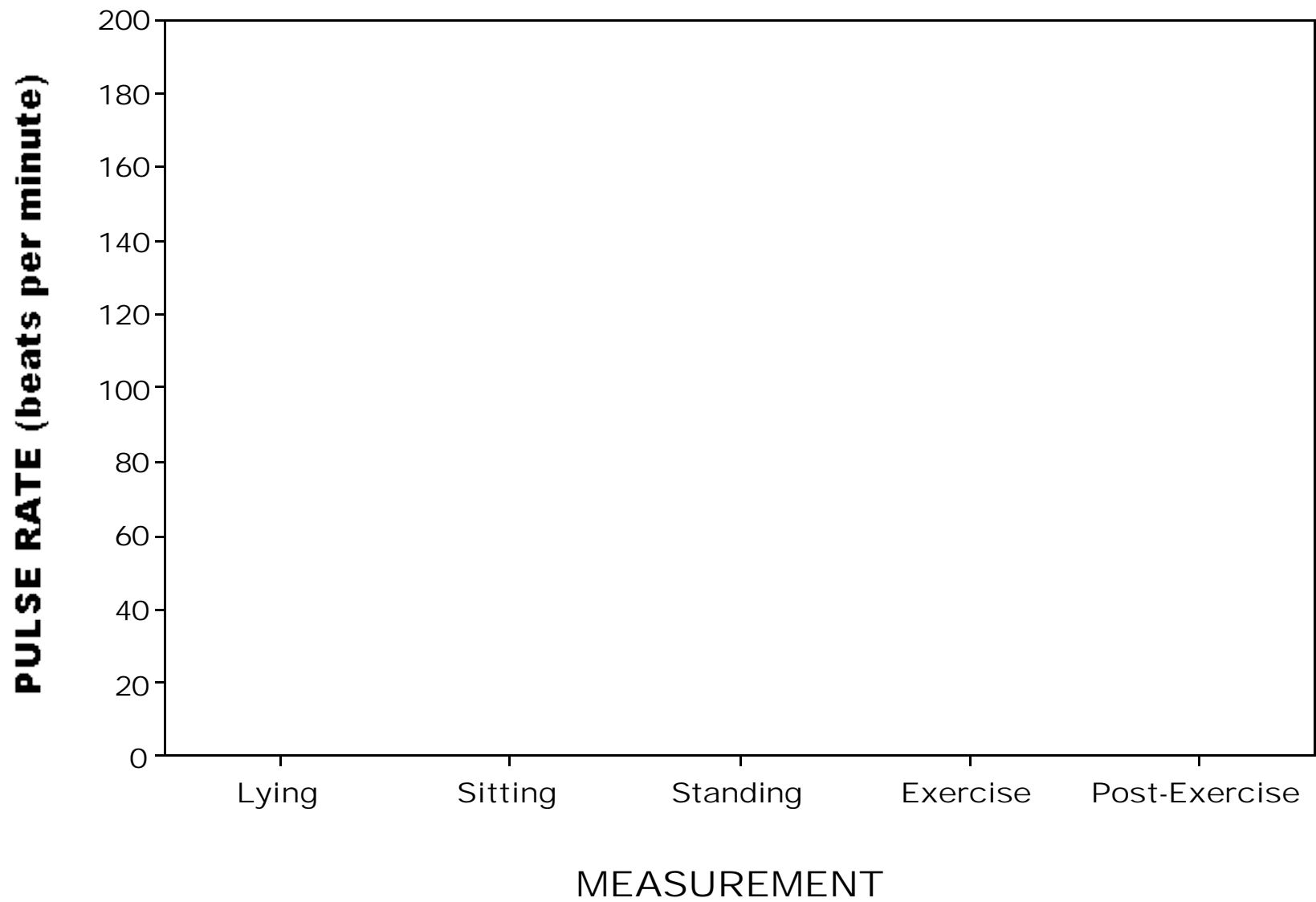
**Table 1. Pulse Rate Data**

Individual	Lying down	Sitting	Standing	During Exercise	Post-Exercise
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
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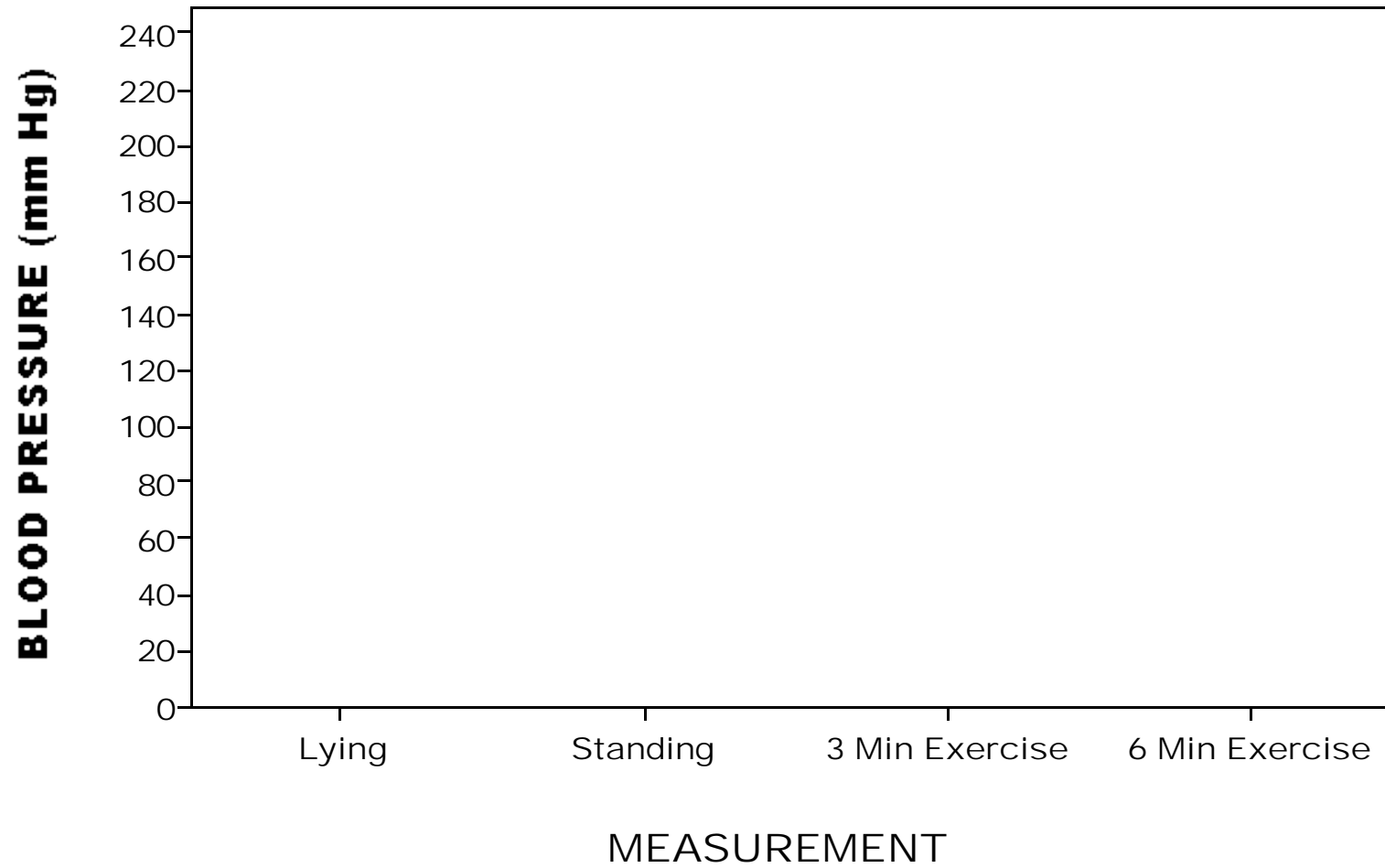
**Table 2. Blood pressure data**

	Systolic Lying	Diastolic Lying	Systolic Standing	Diastolic Standing	Systolic 3 min	Diastolic 3 min	Systolic 6 min	Diastolic 6 min
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
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23								
24								

Graph 1. Bar graph of class averages for pulse rate data.



**Graph 2. Line graph of class averages for blood pressure measurements.**



**Questions:****1. Pulse Rate:** Based on examination of your bar graph

- a. What were the effects of posture and activity on pulse rate?
- b. Explain why you think these effects occurred.

**2. Blood Pressure:** Based on examination of your line graph

- a. What is the effect of posture on blood pressure? Why do you think this effect occurs? Is this effect the same for both systolic and diastolic pressures?
- b. What is the effect of activity on blood pressure? (To answer this, compare your means for 3 minutes of exercise versus the mean blood pressure when standing at rest). Why do you think this effect occurs? Does activity affect systolic and diastolic pressures in the same way?

- c.** What is the effect of increased activity on blood pressure? (To answer this, compare your means for 3 minutes of exercise versus the mean blood pressure after 6 minutes of exercise). Why do you think this effect occurs? Does increased activity affect systolic and diastolic pressures in the same way?