

Phys 420: Circuitry and the Heart Activity Worksheet

I \_\_\_\_\_, provide my consent to participate in the demonstration activities and use of Heart Beat Sensor device, acknowledging that I am operating at my own risk.

Witness/partner name: \_\_\_\_\_

Witness/partner signature: \_\_\_\_\_

Date: \_\_\_\_\_

Warm up Activity

1. Find a partner (max group of 3)
2. Pick a group leader
3. Devise and 'apply' method to calculate, resting and active heart rates of the team leader
4. Record results
5. Discuss, in groups and as a class

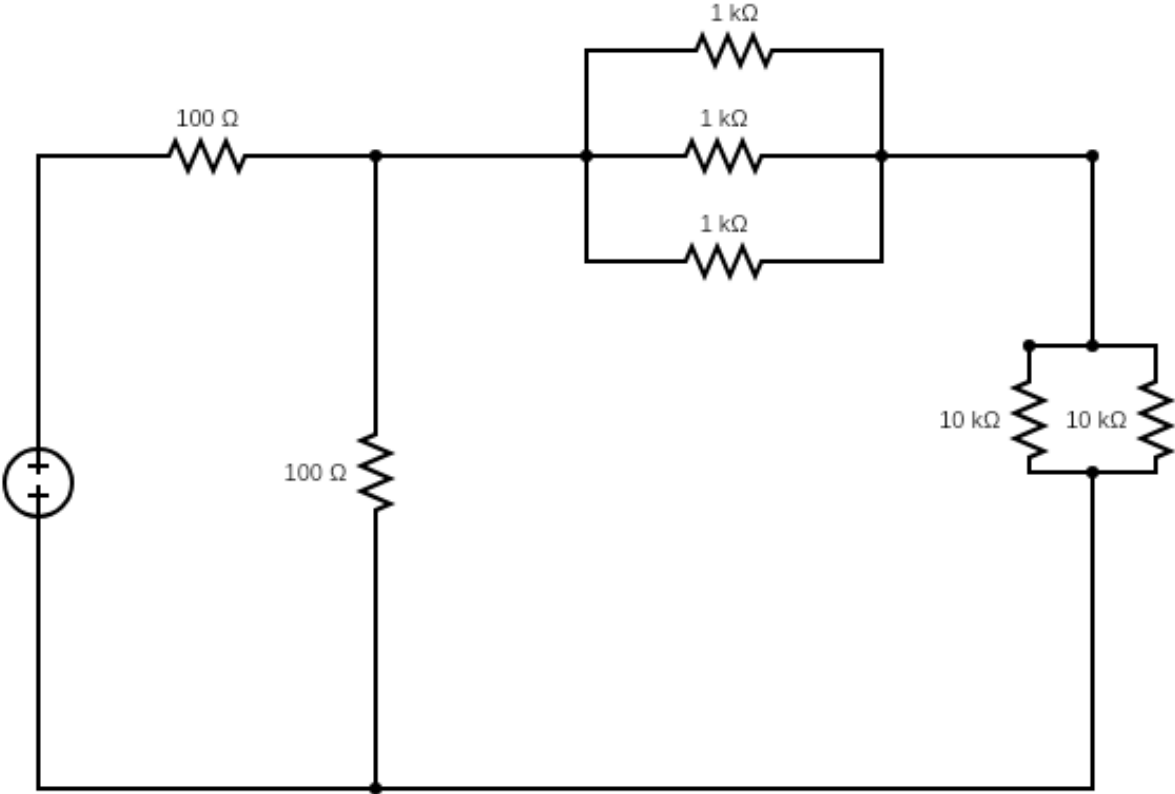
Trial	Number of Beats	Duration	Pulse (in Beats/min)
1			
2			
3			

BPM determined by Heart Beat Sensor circuit: \_\_\_\_\_.

Ohm's Law Review:

Determine the initial current, knowing the following:

- Ohm's Law  $V = IR$ ,  $V = 12V$  in this case
- It may be helpful to redraw circuits with equivalent resistors



Total Voltage \_\_\_\_\_

Total Resistance \_\_\_\_\_

Total Current \_\_\_\_\_