1. What is a standing wave? (20 pts)

2. What is a resonant frequency? (20 pts)

3. Explain the relationship $v = \lambda f$. (20 pts)

4. Refer to Eq. 12.1 and Eq. 12.3 (Step 10 of the procedure). You measure $\frac{1}{2} \lambda$ to be 40 cm. The temperature in the lab is 22°C. What is the frequency of this resonance? (40 pts)