

P #3

Ch 14 - pg 456

$$f = 700 \text{ Hz}$$

$$\lambda = .50 \text{ m}$$

Find v :

$$v = f \cdot \lambda$$

$$= (700 \text{ Hz})(.50 \text{ m})$$

$$v = 350 \text{ m/s}$$

Find T :

$$350 \text{ m/s} = (331 \text{ m/s}) \cdot \sqrt{1 + \frac{T}{273}}$$

$$1.118 = 1 + \frac{T}{273}$$

$$T = 32.2 \text{ }^{\circ}\text{C}$$