

a) $A = \frac{1}{2}$ distance from crest to trough

$$A = \frac{1}{2}(18.0 \text{ cm})$$

$$A = 9.0 \text{ cm}$$

b) $\lambda = 2 \cdot$ distance from crest to trough

$$\lambda = 2 \cdot (10.0 \text{ cm})$$

$$\lambda = 20.0 \text{ cm}$$

c) $T = \frac{1}{f} = \frac{1}{25 \text{ Hz}}$

$$T = .04 \text{ sec}$$

d) $\lambda = 20.0 \text{ cm}$
 $f = 25.0 \text{ Hz}$

$$v = f \cdot \lambda$$
$$= (25.0 \text{ Hz})(20.0 \text{ cm})$$

$$v = 500 \text{ cm/s}$$