

Physics II

Unit 7.1 Wave Properties

1) $p = \frac{1}{f}$ $p = \frac{1}{25 \text{ Hz}} = 0.04 \text{ s}$

2) 4m as a captain is looking at the whole wave from the trough

3) $f = \frac{1}{p} = \frac{1}{\frac{3600 \text{ s}}{1 \text{ hr}}} =$

4) $v = \lambda f$ $v = 25 \text{ cm/s} \rightarrow 0.025 \text{ m/s}$
 $\lambda = 2.5 \text{ cm} \rightarrow 0.0025 \text{ m}$

$0.025 \text{ m/s} = 0.0025 \text{ m } (f)$

$0.025 \div 0.0025 = (f)$

$10 \text{ Hz} = f$

$$5. \quad \lambda = 12\text{m} \quad T = 6\text{s} \quad v = \lambda f$$

$$f = \frac{1}{6\text{s}} = 0.17 \text{ Hz}$$

$$f = \frac{1}{T}$$

$$v = (12\text{m})(0.17 \text{ Hz})$$

$$= 2 \text{ m/s}$$