

MP/340 (Period + Frequency)

36s for 24 cycles

period - time for 1 cycle:

$$T = \frac{36s}{24 \text{ cycles}}$$

$$T = 1.5s$$

frequency - # of cycles in 1s:

$$f = \frac{24 \text{ cycles}}{36s}$$

$$f = 0.67 \text{ cycles/s}$$

$$\underline{\underline{\text{OR}}}$$

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

$$f = \frac{1}{1.5s}$$

$$f = 0.67 \text{ Hz}$$

Hz

 s^{-1} or $/s$

MP/348 (universal wave equation)

$$f = 2.8 \text{ Hz}$$

$$v = \lambda f$$

$$\lambda = 0.36 \text{ m}$$

$$v = (0.36 \text{ m})(2.8 \text{ s}^{-1})$$

$$v = ??$$

$$v = 1.0 \text{ m/s}$$

$$\lambda = 2.8 \text{ m}$$

$$v = \lambda f$$

$$v = 3.80 \text{ m/s}$$

$$f = \frac{v}{\lambda}$$

$$f = ?$$

$$f = \frac{3.80 \text{ m/s}}{2.8 \text{ m}}$$

$$\frac{\text{m/s}}{\text{m}} = \text{s}^{-1} \\ \text{Hz}$$

PP/341
PP/349-350

$$f = 1.4 \text{ Hz}$$