

What is the  $f$  of ocean waves that have a speed of  $18 \text{ m/s}$  & a  $\lambda$  of  $50 \text{ m}$ ?

PR

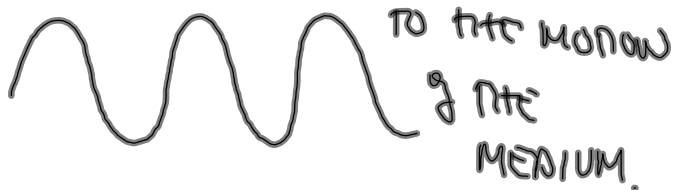
$$\frac{v}{\lambda} = f \frac{\lambda}{\lambda} \quad f = \frac{v}{\lambda} = \frac{18 \text{ m/s}}{50 \text{ m}}$$

$$= .36 \frac{\cancel{\text{m}}}{\cancel{\text{s}}} \frac{\cancel{\text{m}}}{\cancel{\text{m}}} \frac{\text{cycles}}{\text{m}}$$

$$= .36 \text{ Hz}$$

BASIC TYPES OF WAVES

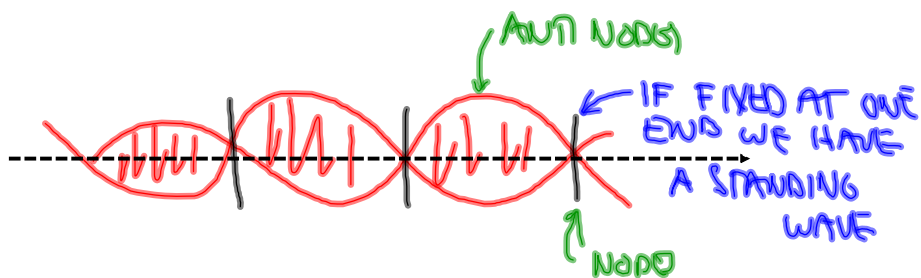
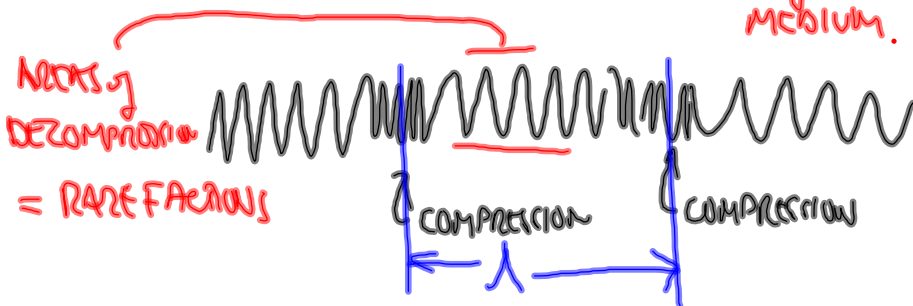
TRANSVERSE - MOTION OF ENERGY IS  $\perp$

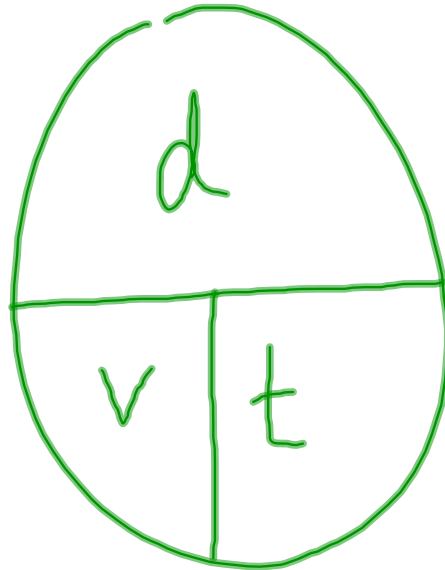


LONGITUDINAL

e.g. SOUND WAVES

OOOOO - MOTION OF ENERGY IS  $\parallel$   
TO THE MOTION OF THE MEDIUM.





$$V = f\lambda \quad f = \frac{V}{\lambda} \quad \lambda = \frac{V}{f}$$

*Also - handed out Electricity & Magnetism project assignment & that there will be an MCAS (like) test next Thursday (05-21-09) that will count.*