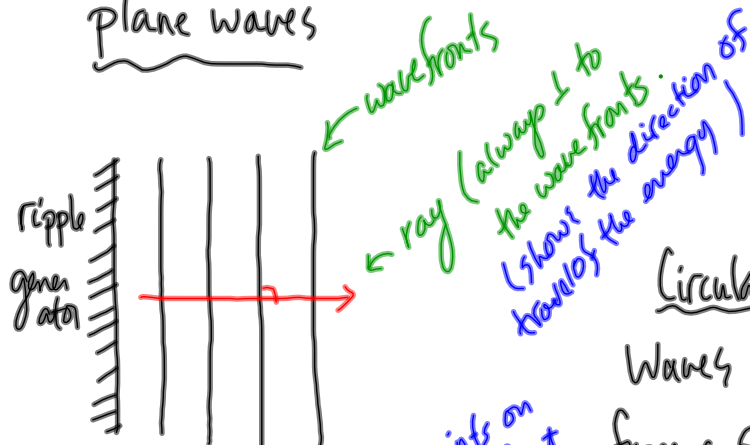


Two-dimensional Waves (4.4.4)

- surface waves on water \Rightarrow study using a ripple tank.

Plane waves

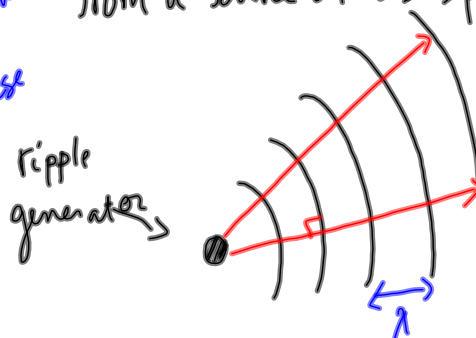


Waves move out in a straight line in 2D space.

↑ all points on the wave front are in the same phase

Circular Waves

Waves move out radially from a source in 2D space.



From yesterday: $103.9 \text{ MHz} \rightarrow$

$$v = \lambda f$$

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

$$\lambda = \frac{3.00 \times 10^8 \text{ m s}^{-1}}{103.9 \times 10^6 \text{ s}^{-1}}$$

$$\lambda = 2.89 \text{ m}$$

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

$$T = \frac{1}{103.9 \times 10^6 \text{ s}^{-1}}$$

$$T = 9.62 \times 10^{-9} \text{ s}$$