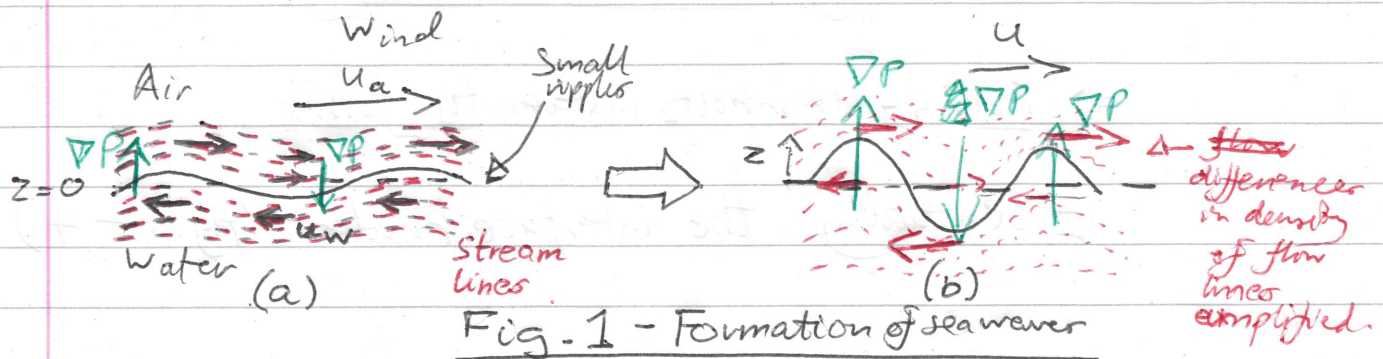


# [AH PS3 Q.6] How do waves form on the surface of the sea?



Waves are formed by wind blowing across the surface of the water ~~perturb~~ causing slight ripples in the surface of the water to grow into waves.

Bernoulli's principle

$$P - \rho g z - \frac{1}{2} \rho u^2 = \text{constant}$$

Stream lines are forced together around peaks and spread out close to troughs  $\Rightarrow$  high velocity over peaks.

$\Rightarrow$  High <sup>air</sup> pressure above a water peak (low water pressure below) & low <sup>air</sup> pressure ~~below~~ <sup>above</sup> a ~~water~~ trough peak (high water pressure below).

Pressure difference leads to a heightening of peaks & a deepening of troughs.