$E_{\text{one part height } h} = \int_0^h A\rho g z dz = A\rho g \frac{h^2}{2}$

$E_{\text{two parts height } h_2} = 2\int_0^{h_2} A\rho g z dz = 2A\rho g \frac{h_2^2}{2} = A\rho g h_2^2$

$E_{\text{one part height h}} > E_{\text{two parts height } h_2}$

$\Rightarrow A\rho g \frac{h^2}{2} > A\rho g h_2^2$

$\Rightarrow \frac{h^2}{2} > h_2^2$

$\Rightarrow \frac{h}{\sqrt{2}} > h_2 > -\frac{h}{\sqrt{2}}$

$\Rightarrow \frac{h}{\sqrt{2}} > h_2$

$\Rightarrow$