

How high in meters should a column of water be to exert the pressure equal to that of a 760 mm column of mercury.

Pressure = Force/ area

F = mass x acceleration

Pressure =  $\frac{\text{mass} \times \text{acceleration}}{\text{area}}$

$$\frac{\text{Mass (Hg)} \times g}{\text{area}} = \frac{\text{mass (water)} \times g}{\text{area}}$$

Mass (hg) = Mass (water)

$D=m/V$      $m=DV$      $V= l \times w \times h = \text{area} \times h$

$D(\text{Hg}) \times h(\text{Hg}) = D(\text{water}) \times h(\text{water})$

$$h(\text{water}) = \frac{D(\text{Hg}) \times h(\text{Hg})}{D(\text{water})} =$$