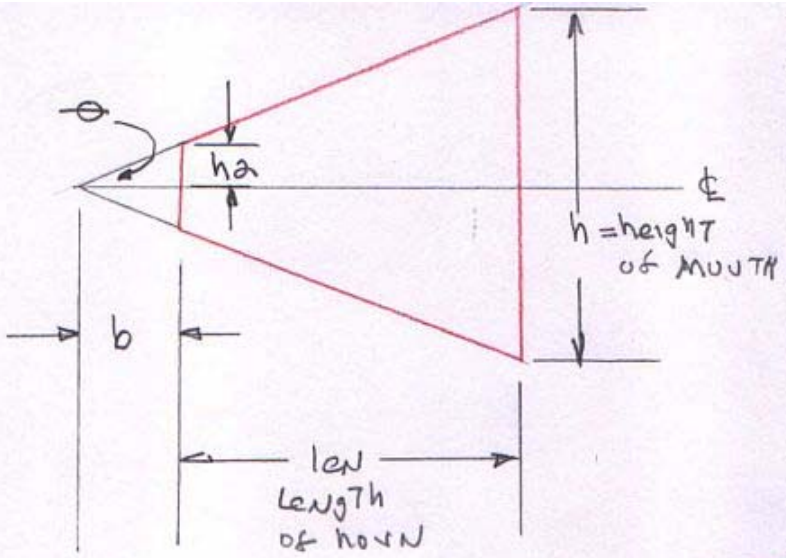
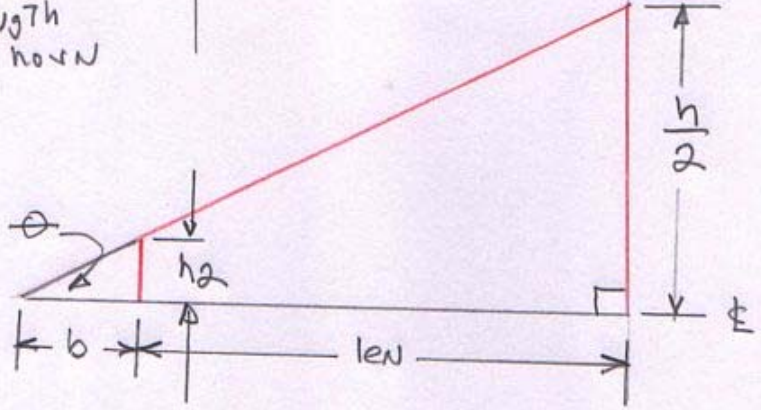


$h_2 = \frac{1}{2}$ height of THROAT



$$b = \frac{h_2 \, len}{\frac{h}{2} - h_2}$$

$$\theta = Tan^{-1}\left(\frac{h}{2(b + len)}\right) = Tan^{-1}\left(\frac{h_2}{b}\right)$$

TRACTRIX FORMULA :

$$LeN = a \, Log_{(e)}\left(\frac{a + \sqrt{a^2 - r^2}}{r}\right) - \sqrt{a^2 - r^2}$$

len = DISTANCE FROM MOUTH TO some POINT along HORN

a = radius of ROUND area equal to rectangular area of MOUTH

r = radius of ROUND area equal to rectangular area of POINT