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$- \pi r^2 h$

$r = 3.55\,cm$
$h = 75.3\,cm$

a) $\pi (3.55\,cm)^2 (75.3\,cm) = 2981.27\,cm^3$

b) $h = 22.5\,in$
$D = 12.9\,in \Rightarrow r = 6.45\,in$

$22.5\,in \times \frac{1\,m}{39.37\,in} = 0.5715\,m$

$6.45\,in \times \frac{1\,m}{39.37\,in} = 0.1638\,m$

$\pi (0.5715\,m)^2 (0.1638\,m) = 0.1681\,m^3$

c) $H_2 = 13.6\,g/cm^3 \quad \rho = m/v \Rightarrow m = \rho v$
$m = ?$

$V = 0.1681\,m^3 \times \frac{(10^2)^3\,cm^3}{1\,m^3} = 168100\,cm^3$

$m = 13.6\,\frac{g}{cm^3} \times 168100\,cm^3 = 2286160\,g = 2.29 \times 10^6\,g$