

Problem 1:

What fraction/percent of the total volume of an iceberg floats above the surface of water? Let the density of water be 1 g/cm^3 and the density of ice be 0.916 g/cm^3 .

Problem 2:

Find the pressure in the water tank shown in the figure below when the air tank is at 202 kPa given that $d_1=30 \text{ cm}$, $d_2=15 \text{ cm}$, $d_3=50 \text{ cm}$, and $d_4=20 \text{ cm}$. Assume that the specific gravity of Mercury is 13.6.

