

Question #46139, Chemistry, Other

The volume of displaced water is equal to volume of volume submerged body.

$$\text{That's why: } V_{d.w.} = V_{iron} + V_{lead} = \frac{m_{iron}}{\rho_{iron}} + \frac{m_{lead}}{\rho_{lead}} = \frac{17g}{7.86g/cm^3} + \frac{25g}{11.31g/cm^3} = 4.37cm^3$$

New water level in the cylinder is $(155+4.37)=159.37 \text{ cm}^3$