

Density & Displacement

Density \rightarrow $\frac{\text{stuff}}{\text{space}}$

Science/math

$$D = \frac{\text{Mass}}{\text{Volume}}$$

Population: $\frac{\text{people}}{\text{area}}$

$\frac{\text{buildings}}{\text{sq. mile}}$

Displacement

Volume that pushed out of the way.

Method

Example: Displacement on 1 die in to a graduated cylinder is 5ml of water.

5cm³ of water

Die weighs 50g.

$$\text{Density} = \frac{50\text{g}}{5\text{cm}} = 10 \text{ g/cm}^3$$

Method:

- ① find the volume of the displacement.
- ② divide mass by volume