Water equivalent of new snow (H2DW or H24W)

$$\text{Water Equivalent (mm)} = \frac{\text{Mass of Sample (g)}}{\text{Cross}-\text{section area (cm}^2)} * 10$$

Density

$$\rho\left(\frac{\text{kg}}{\text{m}^3}\right) = \frac{\text{Mass of sample (g)}}{\text{Height of sample (cm)}} * 100$$

Density

$$\rho\left(\frac{\text{kg}}{\text{m}^3}\right) = \frac{\text{Mass of sample (g)}}{\text{Volume of Sample (cm}^3)} * 100$$

Water Equivalent of snow cover (HSW)

$$\text{HSW (mm)} = \sum\left[\text{Vertical thickness (cm)} * \text{Density}\left(\frac{\text{kg}}{\text{m}^3}\right)\right] * 0.01$$

Average Bulk Density

$$\bar{\rho}\left(\frac{\text{kg}}{\text{m}^3}\right) = \frac{\text{Water equivalent of snow cover (mm)}}{\text{Total snowpack depth (cm)}} * 100$$