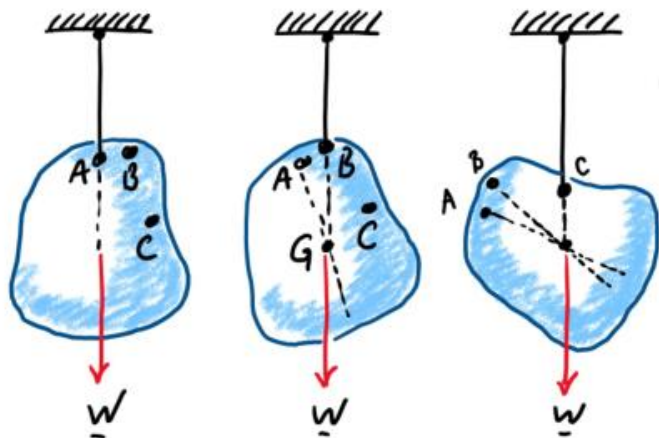
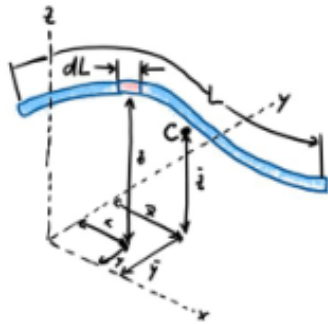




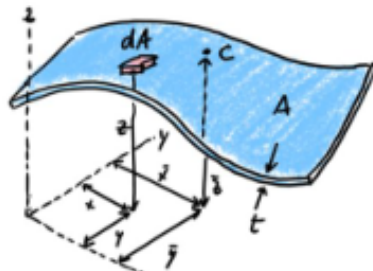


Elemental Mass:

$$dm = \rho \cdot A \cdot dL$$

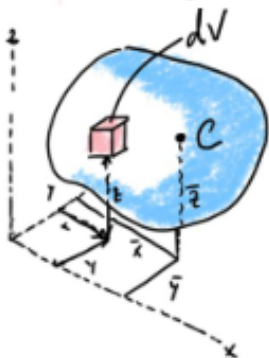
Centroid

$$\bar{x} = \frac{\int x \cdot dL}{L}; \quad \bar{y} = \frac{\int y \cdot dL}{L}; \quad \bar{z} = \frac{\int z \cdot dL}{L};$$



$$dm = \rho \cdot t \cdot dA$$

$$\bar{x} = \frac{\int x \cdot dA}{A}; \quad \bar{y} = \frac{\int y \cdot dA}{A}; \quad \bar{z} = \frac{\int z \cdot dA}{A};$$



$$dm = \rho \cdot dV$$

$$\bar{x} = \frac{\int x \cdot dV}{V}; \quad \bar{y} = \frac{\int y \cdot dV}{V}; \quad \bar{z} = \frac{\int z \cdot dV}{V};$$