$\bar{x} = \frac{\sum x_i A_i}{\sum A_i}$	$\bar{x} = \frac{\int \tilde{x}\, dA}{\int dA}$	$\bar{y} = \frac{\sum y_i A_i}{\sum A_i}$	$\bar{y} = \frac{\int \tilde{y}\, dA}{\int dA}$
$\bar{x} = \frac{\sum x_i V_i}{\sum V_i}$	$\bar{x} = \frac{\int \tilde{x}\, dV}{\int dV}$	$\bar{y} = \frac{\sum y_i V_i}{\sum V_i}$	$\bar{y} = \frac{\int \tilde{y}\, dV}{\int dV}$
$\bar{x} = \frac{\sum x_i m_i}{\sum m_i}$	$\bar{x} = \frac{\int \tilde{x}\, dm}{\int dm}$	$\bar{y} = \frac{\sum y_i m_i}{\sum m_i}$	$\bar{y} = \frac{\int \tilde{y}\, dm}{\int dm}$
$\bar{x} = \frac{\sum x_i w_i}{\sum w_i}$	$\bar{x} = \frac{\int \tilde{x}\, dw}{\int dw}$	$\bar{y} = \frac{\sum y\, w_i}{\sum w_i}$	$\bar{y} = \frac{\int \tilde{y}\, dw}{\int dw}$

$$V = \int dV = \theta \int \tilde{r}\, dA$$

$$\rho g\, dV = \gamma\, dV = dw$$

$A = \theta \bar{r} L$	$V = \theta \bar{r} A$	$SA = \theta \bar{r}$

$F_s = k(\ell - \ell_0)$	$dx = h \tan\theta$	$F_s = k\, dx$

$$P_1 = P_0 + \rho g h = P_0 + \gamma d$$

$$w = \gamma A$$

$P_A = \rho g d_A$	$P_B = \rho g d_B$
$F_1 = P_A h w$	$F_2 = \frac{1}{2}(P_B - P_A) h w$

$F_1 = \left(1 - \frac{d}{L}\right) F$	$F_2 = \frac{d}{L} F$