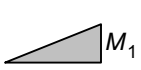
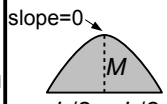
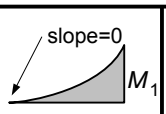
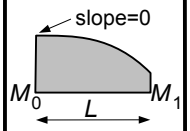
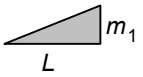
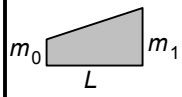
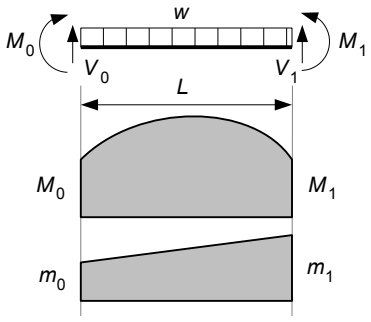
Values of $\int_0^L mM\,dx$

m \ M	Linear M diagrams				Parabolic M diagrams*		
							
	LmM	$\frac{L}{2}mM_0$	$\frac{L}{2}mM_1$	$\frac{L}{2}m(M_0+M_1)$	$2\frac{L}{3}mM$	$\frac{L}{3}mM_1$	$\frac{L}{3}m(2M_0+M_1)$
	$\frac{L}{2}m_0M$	$\frac{L}{3}m_0M_0$	$\frac{L}{6}m_0M_1$	$\frac{L}{6}m_0\times$ $(2M_0+M_1)$	$\frac{L}{3}m_0M$	$\frac{L}{12}m_0M_1$	$\frac{L}{12}m_0\times$ $(5M_0+M_1)$
	$\frac{L}{2}m_1M$	$\frac{L}{6}m_1M_0$	$\frac{L}{3}m_1M_1$	$\frac{L}{6}m_1\times$ (M_0+2M_1)	$\frac{L}{3}m_1M$	$\frac{L}{4}m_1M_1$	$\frac{L}{4}m_1\times$ (M_0+M_1)
	$\frac{L}{2}(m_0+m_1)M$	$\frac{L}{6}(2m_0+m_1)$ $\times M_0$	$\frac{L}{6}(m_0+2m_1)$ $\times M_1$	$\frac{L}{6}[m_0(2M_0+M_1)$ $+m_1(M_0+2M_1)]$	$\frac{L}{3}(m_0+m_1)M$	$\frac{L}{12}(m_0+3m_1)$ $\times M_1$	$\frac{L}{12}[m_0(5M_0+M_1)$ $+3m_1(M_0+M_1)]$

* - note: M_0 and M_1 are positive in the directions shown

Most general case:



$$\int mM\,dx = \frac{L}{24}\left[m_0\left(wL^2+8M_0+4M_1\right)+m_1\left(wL^2+4M_0+8M_1\right)\right]$$