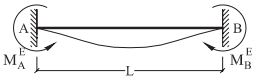
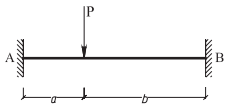
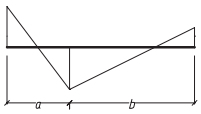
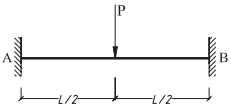
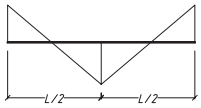
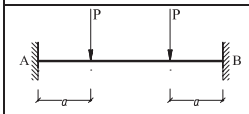
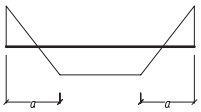
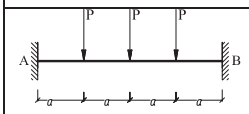
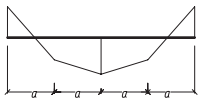
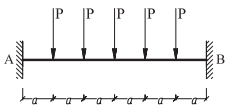
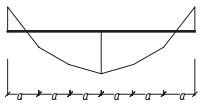
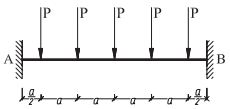
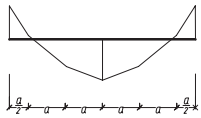
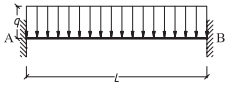
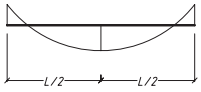
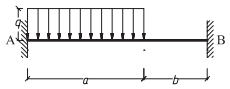
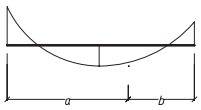
TABLA A.4

VIGA EMPOTRADA
DISTINTAS HIPOTESIS DE CARGA



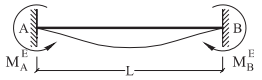
P, q y segmentos en valor absoluto

SOLICITACION	MOMENTOS DE EMPOTRAMIENTO PERFECTO	REACCIONES EN LOS APOYOS	DIAGRAMA DE MOMENTOS FLECTORES
	$M_A^E = \frac{Pab^2}{L^2}$ $M_B^E = -\frac{Pa^2b}{L^2}$	$R_A = p\frac{b^2}{L^2}\left(3-2\frac{b}{L}\right)$ $R_B = p\frac{a^2}{L^2}\left(3-2\frac{a}{L}\right)$	
	$M_A^E = \frac{PL}{8}$ $M_B^E = -\frac{PL}{8}$	$R_A = \frac{P}{2}$ $R_B = \frac{P}{2}$	
	$M_A^E = \frac{Pa(L-a)}{L}$ $M_B^E = -\frac{Pa(L-a)}{L}$	$R_A = P$ $R_B = P$	
	$M_A^E = \frac{5PL}{16}$ $M_B^E = -\frac{5PL}{16}$	$R_A = \frac{3P}{2}$ $R_B = \frac{3P}{2}$	
n° de fuerzas = n-1 	$M_A^E = \frac{PL(n^2-1)}{12n}$ $M_B^E = -\frac{PL(n^2-1)}{12n}$	$R_A = \frac{n-1}{2}P$ $R_B = \frac{n-1}{2}P$	
n° de fuerzas = n-1 	$M_A^E = \frac{PL(2n^2+1)}{24n}$ $M_B^E = -\frac{PL(2n^2+1)}{24n}$	$R_A = \frac{n}{2}P$ $R_B = \frac{n}{2}P$	
	$M_A^E = \frac{qL^2}{12}$ $M_B^E = -\frac{qL^2}{12}$	$R_A = \frac{qL}{2}$ $R_B = \frac{qL}{2}$	
	$M_A^E = \frac{qa^2}{12}\left[6-\frac{a}{L}\left(8-3\frac{a}{L}\right)\right]$ $M_B^E = -\frac{qa^3}{12L}\left(4-3\frac{a}{L}\right)$	$R_A = \frac{qa}{2}\left[2-\frac{a^2}{L^2}\left(2-\frac{a}{L}\right)\right]$ $R_B = \frac{qa^3}{2L^2}\left(2-\frac{a}{L}\right)$	

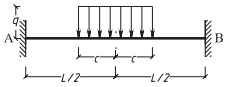
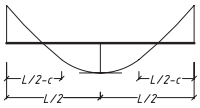
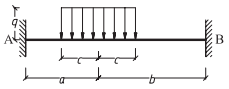
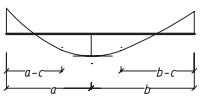
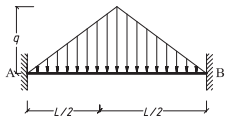
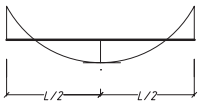
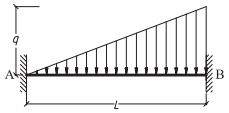
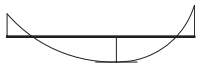
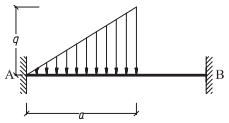
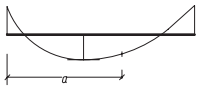
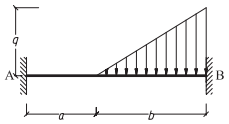
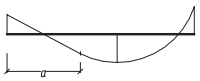
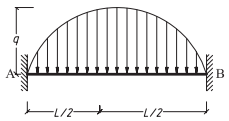
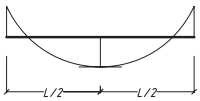
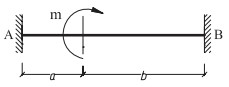
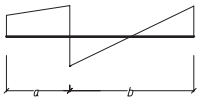
FUENTE: Jiménez Montoya – García Meseguer – Morán Cabre

TABLA A.5

VIGA EMPOTRADA
DISTINTAS HIPOTESIS DE CARGA



P, q y segmentos en valor absoluto

SOLICITACION	MOMENTOS DE EMPOTRAMIENTO PERFECTO	REACCIONES EN LOS APOYOS	DIAGRAMA DE MOMENTOS FLECTORES
	$M_A^E = \frac{qc}{12L}\left(3L^2 - 4c^2\right)$ $M_B^E = -\frac{qc}{12L}\left(3L^2 - 4c^2\right)$	$R_A = qc$ $R_B = qc$	
	$M_A^E = 2qc\left(a\frac{b^2}{L^2} - \frac{c^2}{L^2}\cdot\frac{3b-L}{3}\right)$ $M_B^E = -2qc\left(b\frac{a^2}{L^2} - \frac{c^2}{L^2}\cdot\frac{3a-L}{3}\right)$	$R_A = 2qc\left[1 - 3\frac{a^2}{L^2} - \frac{c^2}{L^2} + 2\frac{a}{L}\left(\frac{a^2}{L^2} + \frac{c^2}{L^2}\right)\right]$ $R_B = 2qc\left[3\frac{a^2}{L^2} + \frac{c^2}{L^2} - 2\frac{a}{L}\left(\frac{a^2}{L^2} + \frac{c^2}{L^2}\right)\right]$	
	$M_A^E = \frac{5}{96}qL^2$ $M_B^E = -\frac{5}{96}qL^2$	$R_A = \frac{qL}{4}$ $R_B = \frac{qL}{4}$	
	$M_A^E = \frac{qL^2}{30}$ $M_B^E = -\frac{qL^2}{20}$	$R_A = \frac{3}{20}qL$ $R_B = \frac{7}{20}qL$	
	$M_A^E = \frac{qa^2}{30}\left[10 - \frac{a}{L}\left(15 - 6\frac{a}{L}\right)\right]$ $M_B^E = -\frac{qa^3}{20L}\left(5 - 4\frac{a}{L}\right)$	$R_A = \frac{qa}{20}\left[10 - \frac{a^2}{L^2}\left(15 - 8\frac{a}{L}\right)\right]$ $R_B = \frac{qa^3}{20L^2}\left(15 - 8\frac{a}{L}\right)$	
	$M_A^E = \frac{qb^3}{60L}\left(5 - 3\frac{b}{L}\right)$ $M_B^E = -\frac{qb^2}{60}\left(3\frac{b^2}{L^2} + 10\frac{a}{L}\right)$	$R_A = \frac{qb^3}{20L^2}\left(5 - 2\frac{b}{L}\right)$ $R_B = \frac{qb}{20}\left[10 - \frac{b^2}{L^2}\left(5 - 2\frac{b}{L}\right)\right]$	
Carga parabólica 	$M_A^E = \frac{qL^2}{15}$ $M_B^E = -\frac{qL^2}{15}$	$R_A = \frac{qL}{3}$ $R_B = \frac{qL}{3}$	
	$M_A^E = m\frac{b}{L}\left(2 - 3\frac{b}{L}\right)$ $M_B^E = m\frac{a}{L}\left(2 - 3\frac{a}{L}\right)$	$R_A = m\frac{6ab}{L^3}$ $R_B = -m\frac{6ab}{L^3}$	

FUENTE: Jiménez Montoya – García Meseguer – Morán Cabre