TABELA 3.2a

MOMENTOS DE ENGASTAMENTO PERFEITO

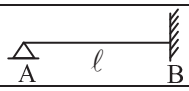
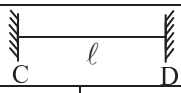
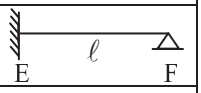
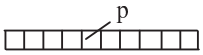
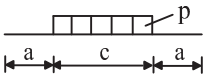
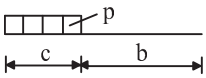
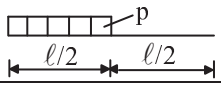
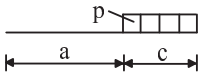
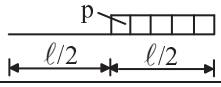
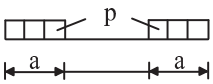
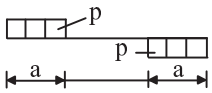
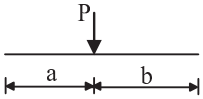
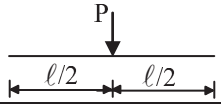
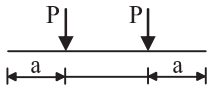
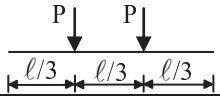
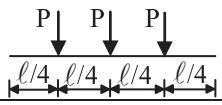
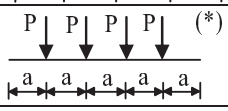
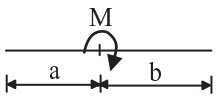
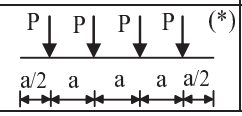
CARREGAMENTO					
		M_{BA}	M_{CD}	M_{DC}	M_{EF}
1		$-\frac{p\ell^2}{8}$	$\frac{p\ell^2}{12}$	$-\frac{p\ell^2}{12}$	$\frac{p\ell^2}{8}$
2		$-\frac{pc}{16\ell}\left(3\ell^2-c^2\right)$	$\frac{pc}{24\ell}\left(3\ell^2-c^2\right)$	$-\frac{pc}{24\ell}\left(3\ell^2-c^2\right)$	$\frac{pc}{16\ell}\left(3\ell^2-c^2\right)$
3		$-\frac{pc^2}{8\ell^2}\left(2\ell^2-c^2\right)$	$\frac{pc^2}{12\ell^2}\left(6b^2+4bc+c^2\right)$	$-\frac{pc^2}{12\ell^2}\left(4bc+c^2\right)$	$\frac{pc^2}{8\ell^2}(\ell+b)^2$
4		$-\frac{7}{128}p\ell^2$	$\frac{11}{192}p\ell^2$	$-\frac{5}{192}p\ell^2$	$\frac{9}{128}p\ell^2$
5		$-\frac{pc^2}{8\ell^2}(\ell+a)^2$	$\frac{pc^2}{12\ell^2}\left(4ac+c^2\right)$	$-\frac{pc^2}{12\ell^2}\left(6a^2+4ac+c^2\right)$	$\frac{pc^2}{8\ell^2}\left(2\ell^2-c^2\right)$
6		$-\frac{9}{128}p\ell^2$	$\frac{5}{192}p\ell^2$	$-\frac{11}{192}p\ell^2$	$\frac{7}{128}p\ell^2$
7		$-\frac{pa^2}{4\ell}(3\ell-2a)$	$\frac{pa^2}{6\ell}(3\ell-2a)$	$-\frac{pa^2}{6\ell}(3\ell-2a)$	$\frac{pa^2}{4\ell}(3\ell-2a)$
8		$-\frac{pa^2}{4\ell}(3\ell-2a)$	$\frac{pa^2}{2\ell^2}(\ell-a)^2$	$-\frac{pa^2}{2\ell^2}(\ell-a)^2$	$\frac{pa^2}{4\ell}(3\ell-2a)$
9		$-\frac{Pab}{2\ell^2}(\ell+a)$	$\frac{Pab^2}{\ell^2}$	$-\frac{Pa^2b}{\ell^2}$	$\frac{Pab}{2\ell^2}(\ell+b)$
10		$-\frac{3P\ell}{16}$	$\frac{P\ell}{8}$	$-\frac{P\ell}{8}$	$\frac{3P\ell}{16}$
11		$-\frac{3Pa}{2\ell}(\ell-a)$	$\frac{Pa}{\ell}(\ell-a)$	$-\frac{Pa}{\ell}(\ell-a)$	$\frac{3Pa}{2\ell}(\ell-a)$
12		$-\frac{P\ell}{3}$	$\frac{2P\ell}{9}$	$-\frac{2P\ell}{9}$	$\frac{P\ell}{3}$
13		$-\frac{15P\ell}{32}$	$\frac{5P\ell}{16}$	$-\frac{5P\ell}{16}$	$\frac{15P\ell}{32}$
14	 (*)	$-\frac{P\ell}{8n}\left(n^2-1\right)$	$\frac{P\ell}{12n}\left(n^2-1\right)$	$-\frac{P\ell}{12n}\left(n^2-1\right)$	$\frac{P\ell}{8n}\left(n^2-1\right)$
15		$-\frac{M}{2\ell^2}\left(\ell^2-3a^2\right)$	$\frac{Mb}{\ell^2}(3b-2\ell)$	$-\frac{Ma}{\ell^2}(2\ell-3a)$	$\frac{M}{2\ell^2}\left(3b^2-\ell^2\right)$
16	 (*)	$-\frac{P\ell}{16n}\left(2n^2+1\right)$	$\frac{P\ell}{24n}\left(2n^2+1\right)$	$-\frac{P\ell}{24n}\left(2n^2+1\right)$	$\frac{P\ell}{16n}\left(2n^2+1\right)$

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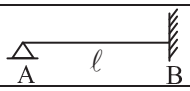
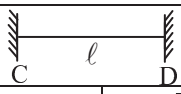
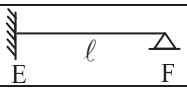
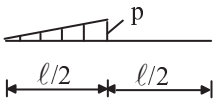
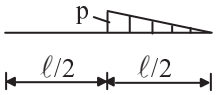
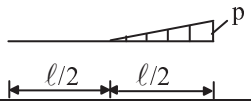
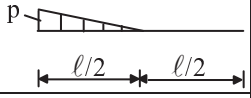
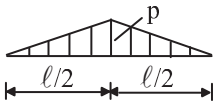
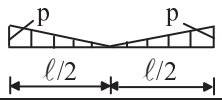
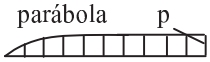
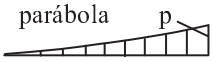
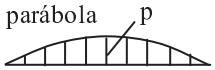
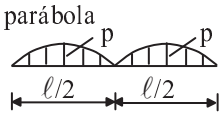
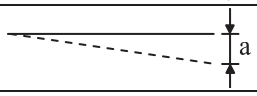
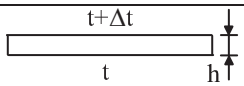
TABELA 3.2b					
MOMENTOS DE ENGASTAMENTO PERFEITO					
CARREGAMENTO					
		M_{BA}	M_{CD}	M_{DC}	M_{EF}
17		$-\frac{p\ell^2}{15}$	$\frac{p\ell^2}{30}$	$-\frac{p\ell^2}{20}$	$\frac{7p\ell^2}{120}$
18		$-\frac{7p\ell^2}{120}$	$\frac{p\ell^2}{20}$	$-\frac{p\ell^2}{30}$	$\frac{p\ell^2}{15}$
19		$-\frac{17}{480}p\ell^2$	$\frac{p\ell^2}{30}$	$-\frac{3}{160}p\ell^2$	$\frac{41}{960}p\ell^2$
20		$-\frac{41}{960}p\ell^2$	$\frac{3}{160}p\ell^2$	$-\frac{p\ell^2}{30}$	$\frac{17}{480}p\ell^2$
21		$-\frac{53}{1920}p\ell^2$	$\frac{7}{960}p\ell^2$	$-\frac{23}{960}p\ell^2$	$\frac{37}{1920}p\ell^2$
22		$-\frac{37}{1920}p\ell^2$	$\frac{23}{960}p\ell^2$	$-\frac{7}{960}p\ell^2$	$\frac{53}{1920}p\ell^2$
23		$-\frac{5}{64}p\ell^2$	$\frac{5}{96}p\ell^2$	$-\frac{5}{96}p\ell^2$	$\frac{5}{64}p\ell^2$
24		$-\frac{3}{64}p\ell^2$	$\frac{p\ell^2}{32}$	$-\frac{p\ell^2}{32}$	$\frac{3}{64}p\ell^2$
25		$-\frac{11}{120}p\ell^2$	$\frac{p\ell^2}{20}$	$-\frac{p\ell^2}{15}$	$\frac{p\ell^2}{12}$
26		$-\frac{p\ell^2}{24}$	$\frac{p\ell^2}{60}$	$-\frac{p\ell^2}{30}$	$\frac{p\ell^2}{30}$
27		$-\frac{p\ell^2}{10}$	$\frac{p\ell^2}{15}$	$-\frac{p\ell^2}{15}$	$\frac{p\ell^2}{10}$
28		$-\frac{7}{80}p\ell^2$	$\frac{7}{120}p\ell^2$	$-\frac{7}{120}p\ell^2$	$\frac{7}{80}p\ell^2$
29		$+\frac{3a}{\ell^2}EI$	$+\frac{6a}{\ell^2}EI$	$+\frac{6a}{\ell^2}EI$	$+\frac{3a}{\ell^2}EI$
30		$+\frac{3\alpha}{\ell}EI$	$+\frac{2\alpha}{\ell}EI$	$+\frac{4\alpha}{\ell}EI$	---
31		---	$-\frac{4\alpha}{\ell}EI$	$-\frac{2\alpha}{\ell}EI$	$-\frac{3\alpha}{\ell}EI$
32		$+\frac{3EI}{2h}\alpha_t\Delta t$	$-\frac{EI}{h}\alpha_t\Delta t$	$+\frac{EI}{h}\alpha_t\Delta t$	$-\frac{3EI}{2h}\alpha_t\Delta t$

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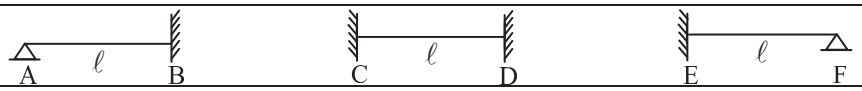
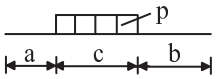
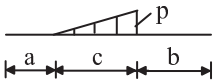
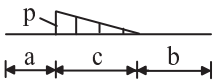
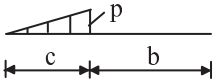
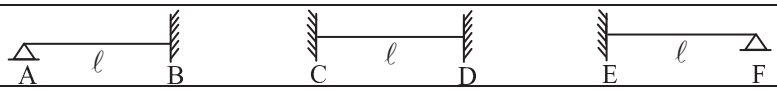
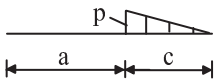
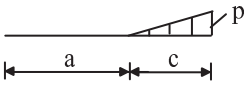
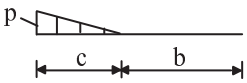
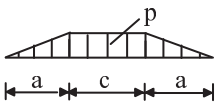
Revista e adaptada por Libânio M. Pinheiro, Bruna Catoia e Thiago Catoia.

TABELA 3.2c		
MOMENTOS DE ENGASTAMENTO PERFEITO		
CARREGAMENTO		
33		$M_{BA} = -\frac{p}{8\ell^2}\left[a^4 - (a+c)^4 + 2c\ell^2(2a+c)\right]$
		$M_{CD} = \frac{p}{12\ell^2}\left\{4\ell\left[(b+c)^3 - b^3\right] - 3\left[(b+c)^4 - b^4\right]\right\}$
		$M_{DC} = -\frac{p}{12\ell^2}\left\{4\ell\left[(a+c)^3 - a^3\right] - 3\left[(a+c)^4 - a^4\right]\right\}$
		$M_{EF} = \frac{p}{8\ell^2}\left[b^4 - (b+c)^4 + 2c\ell^2(2b+c)\right]$
34		$M_{BA} = -\frac{pc}{108\ell^2}(3a+2c)\left[9(\ell^2 - a^2) - 12ac - c^2\left(4 + \frac{45a+28c}{30a+20c}\right)\right]$
		$M_{CD} = \frac{pc}{540\ell^2}\left[10(3b+c)^2(3a+2c) - 15c^2(3b-\ell) - 17c^3\right]$
		$M_{DC} = -\frac{pc}{540\ell^2}\left[10(3b+c)(3a+2c)^2 - 15c^2(3a-\ell) - 28c^3\right]$
		$M_{EF} = \frac{pc}{108\ell^2}(3b+c)\left[9(\ell^2 - b^2) - 6bc - c^2\left(1 + 9\frac{45b+17c}{270b+90c}\right)\right]$
35		$M_{BA} = -\frac{pc}{108\ell^2}(3a+c)\left[9(\ell^2 - a^2) - 6ac - c^2\left(1 + 9\frac{45a+17c}{270a+90c}\right)\right]$
		$M_{CD} = \frac{pc}{540\ell^2}\left[10(3a+c)(3b+2c)^2 - 15c^2(3b-\ell) - 28c^3\right]$
		$M_{DC} = -\frac{pc}{540\ell^2}\left[10(3a+c)^2(3b+2c) - 15c^2(3a-\ell) - 17c^3\right]$
		$M_{EF} = \frac{pc}{108\ell^2}(3b+2c)\left[9(\ell^2 - b^2) - 12bc - c^2\left(4 + \frac{45b+28c}{30b+20c}\right)\right]$
36		$M_{BA} = -\frac{p}{30\ell^2}c^2(5\ell^2 - 3c^2)$
		$M_{CD} = \frac{p}{30\ell^2}c^2(10\ell^2 - 15c\ell + 6c^2)$
		$M_{DC} = -\frac{p}{20\ell^2}c^2(5c\ell - 4c^2)$
		$M_{EF} = \frac{p}{120\ell^2}c^2(40\ell^2 - 45c\ell + 12c^2)$

Extraída de SCHREYER (1965). Convenção de GRINTER.
Revista e adaptada por Libânio M. Pinheiro, Bruna Catoia e Thiago Catoia.

TABELA 3.2d		
MOMENTOS DE ENGASTAMENTO PERFEITO		
CARREGAMENTO		
37		$M_{BA} = -\frac{p}{120\ell^2} c^2 \left(40\ell^2 - 45c\ell + 12c^2\right)$
		$M_{CD} = \frac{p}{20\ell^2} c^2 \left(5c\ell - 4c^2\right)$
		$M_{DC} = -\frac{p}{30\ell^2} c^2 \left(10\ell^2 - 15c\ell + 6c^2\right)$
		$M_{EF} = \frac{p}{30\ell^2} c^2 \left(5\ell^2 - 3c^2\right)$
38		$M_{BA} = -\frac{p}{120\ell^2} c^2 \left(20\ell^2 - 15c\ell + 3c^2\right)$
		$M_{CD} = \frac{p}{60\ell^2} c^2 \left(5c\ell - 3c^2\right)$
		$M_{DC} = -\frac{p}{60\ell^2} c^2 \left(10a\ell + 3c^2\right)$
		$M_{EF} = \frac{p}{120\ell^2} c^2 \left(10\ell^2 - 3c^2\right)$
39		$M_{BA} = -\frac{p}{120\ell^2} c^2 \left(10\ell^2 - 3c^2\right)$
		$M_{CD} = \frac{p}{60\ell^2} c^2 \left(10b\ell + 3c^2\right)$
		$M_{DC} = -\frac{p}{60\ell^2} c^2 \left(5c\ell - 3c^2\right)$
		$M_{EF} = \frac{p}{120\ell^2} \left(20\ell^2 - 15c\ell + 3c^2\right)$
40		$M_{BA} = -\frac{p}{8\ell} \left(\ell^3 - 2a^2\ell + a^3\right)$
		$M_{CD} = \frac{p}{12\ell} \left(\ell^3 - 2a^2\ell + a^3\right)$
		$M_{DC} = -\frac{p}{12\ell} \left(\ell^3 - 2a^2\ell + a^3\right)$
		$M_{EF} = \frac{p}{8\ell} \left(\ell^3 - 2a^2\ell + a^3\right)$
Extraída de SCHREYER (1965). Convenção de GRINTER. Revista e adaptada por Libânio M. Pinheiro, Bruna Catoia e Thiago Catoia.		