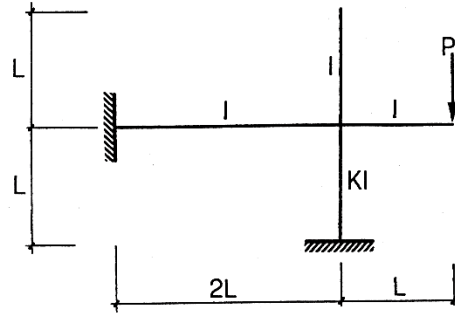


1.



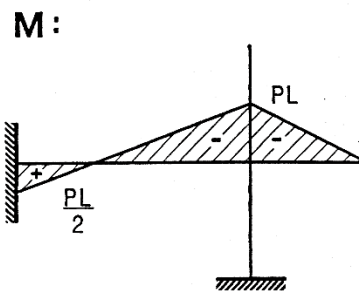
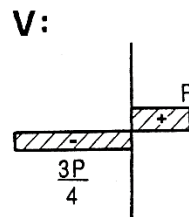
causes		
effets		
moments selon X	\oplus PL $b_0 = -PL$	$\frac{4EI}{2L}$ \oplus $\frac{4KEI}{L}$ \ominus $b_1 = (4K+2)\frac{EI}{L}$

Condition d'équilibre :

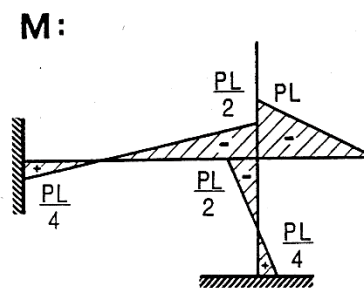
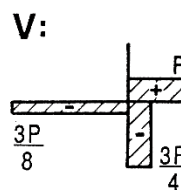
$$b_0 + b_1 x = 0 \rightarrow x = -\frac{b_0}{b_1} = \frac{PL^2}{(4K+2)EI}$$

Discussion des résultats :

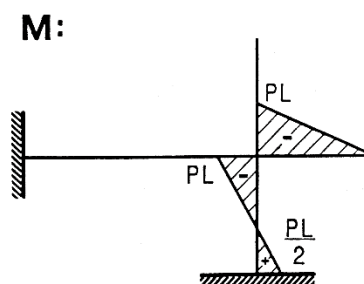
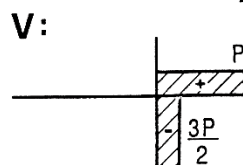
$$K=0 \rightarrow X_1 = \frac{PL^2}{2EI}$$

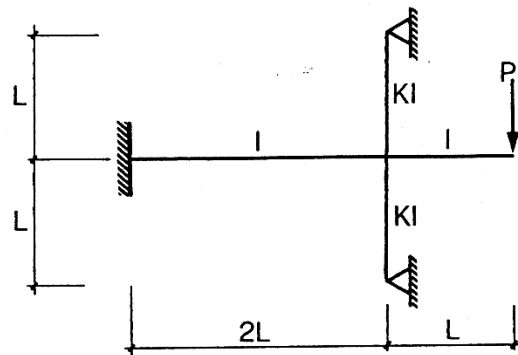


$$K = \frac{1}{2} \rightarrow X_1 = \frac{PL^2}{4EI}$$



$$K = \infty \rightarrow X_1 = 0$$



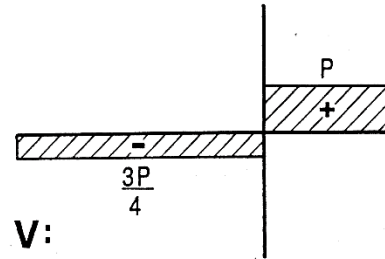
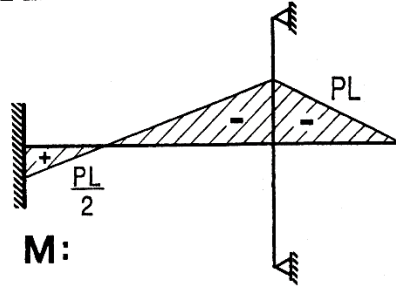


causes		
effets		
moments selon X	\oplus PL $b_0 = -PL$	$\oplus \frac{4EI}{2L}$ $\oplus \frac{3KEI}{L}$ $\ominus \frac{3KEI}{L}$ $b_1 = (6K + 2) \frac{EI}{L}$

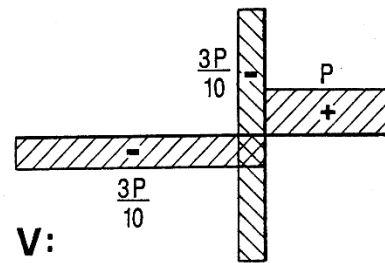
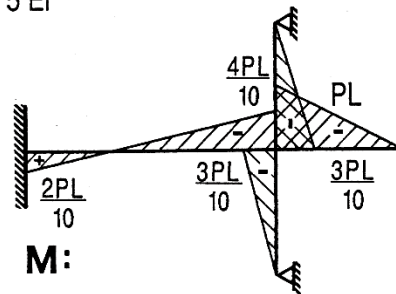
Condition d'équilibre :

$$b_0 + b_1 x = 0 \rightarrow x = -\frac{b_0}{b_1} = \frac{PL^2}{(6K + 2)EI}$$

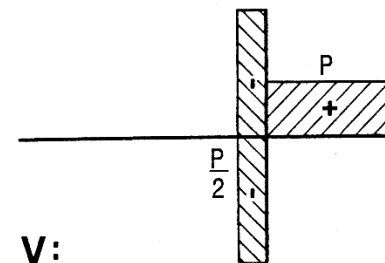
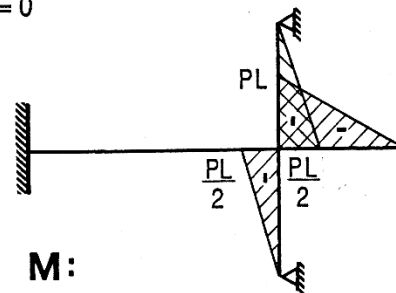
$$K=0 \rightarrow X = \frac{PL^2}{2EI}$$



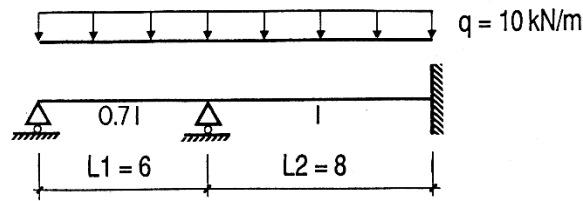
$$K = \frac{1}{2} \rightarrow X = \frac{PL^2}{5EI}$$



$$K = \infty \rightarrow X = 0$$



2.



causes		
effets		
moments selon X	$\frac{qL_1^2}{8}$ (←) $\frac{qL_2^2}{12}$ (→) $b_0 = -\frac{5q}{6}$	$\frac{3 \cdot 0,7 EI}{L_1}$ (←) $\frac{4 EI}{L_2}$ (→) $b_1 = \frac{5,1 EI}{6}$

Condition d'équilibre :

$$b_0 + b_1 x = 0 \rightarrow x = -\frac{b_0}{b_1} = \frac{5q}{5,1 EI}$$

