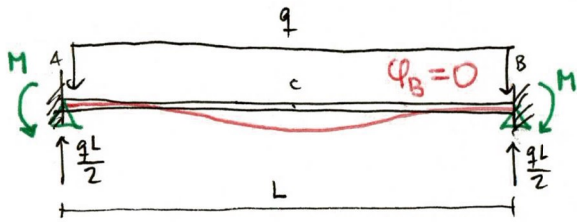
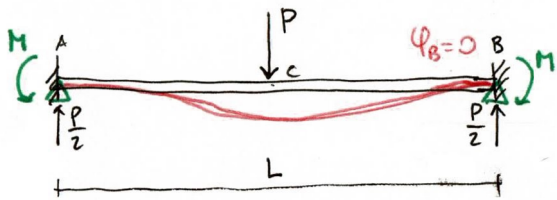
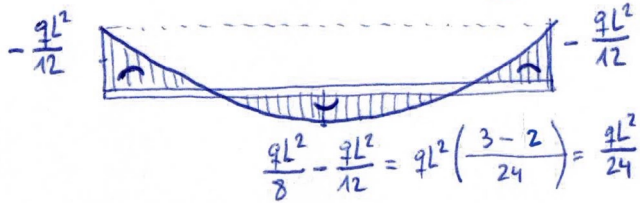


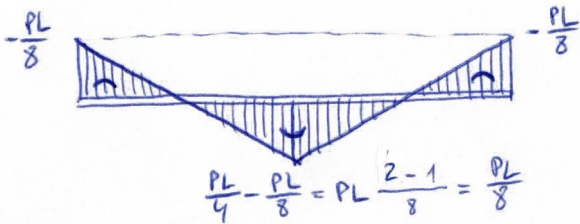
$E, I, q, L$ : valores conocidos  
 $M$ : incógnita



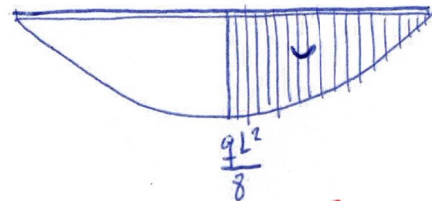
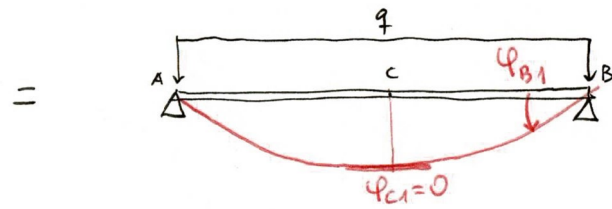
$$|\varphi_{B1}| = |\varphi_{B2}| \Rightarrow \frac{qL^3}{24EI} = \frac{ML}{2EI} \Rightarrow \boxed{M = \frac{qL^2}{12}}$$



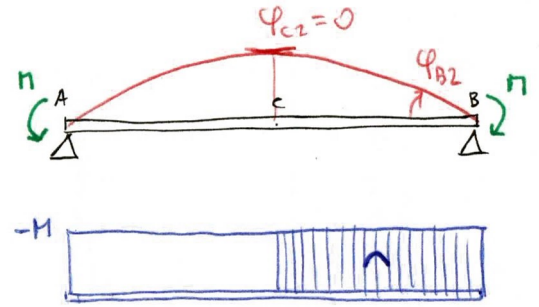
$$|\varphi_{B1}| = |\varphi_{B2}| \Rightarrow \frac{PL^2}{16EI} = \frac{ML}{2EI} \Rightarrow \boxed{M = \frac{PL}{8}}$$



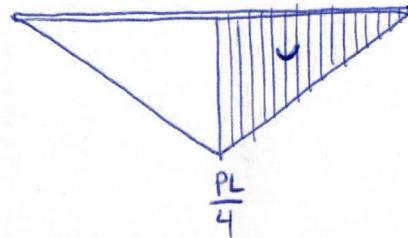
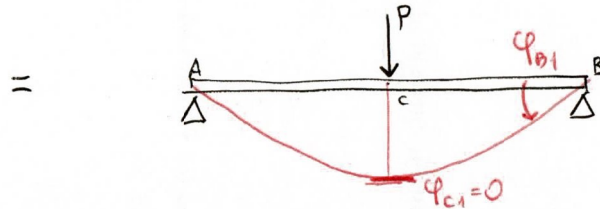
## MOMENTOS DE EMPOTRAMIENTO PERFECTO



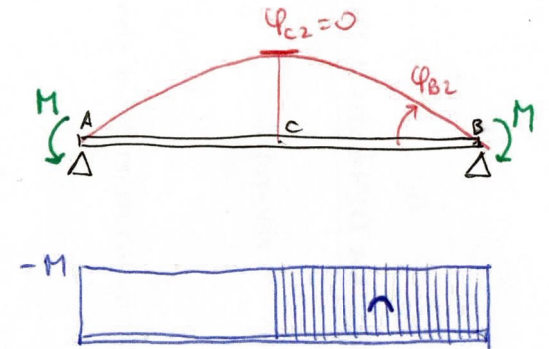
$$|\varphi_{B1}| = \frac{1}{EI} \frac{2}{3} \frac{L}{2} \frac{qL^2}{8} = \frac{qL^3}{24EI}$$



$$|\varphi_{B2}| = \frac{1}{EI} \frac{L}{2} M = \frac{ML}{2EI}$$



$$|\varphi_{B1}| = \frac{1}{EI} \frac{1}{2} \frac{L}{2} \frac{PL}{4} = \frac{PL^2}{16EI}$$



$$|\varphi_{B2}| = \frac{1}{EI} \frac{L}{2} M = \frac{ML}{2EI}$$