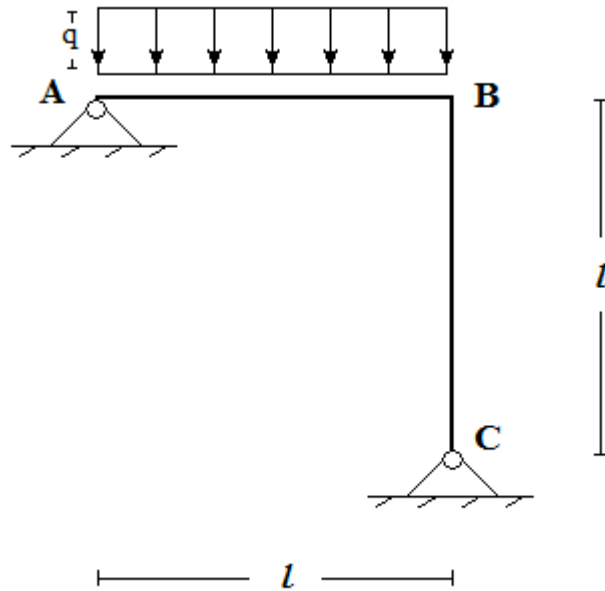
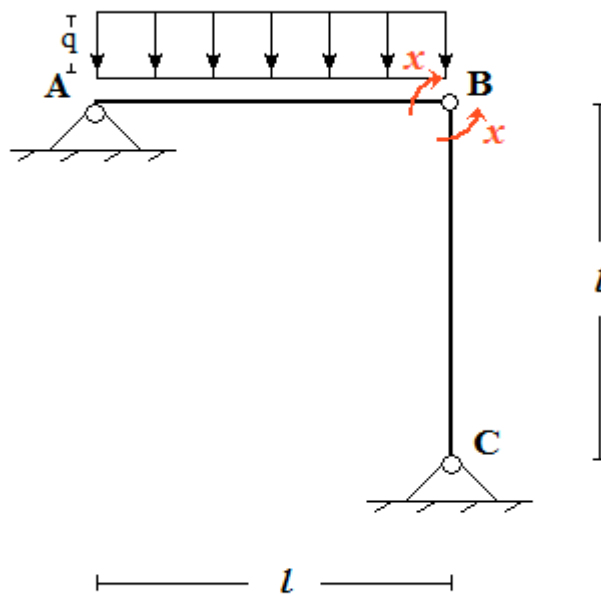


Risolvere il sistema iperstatico



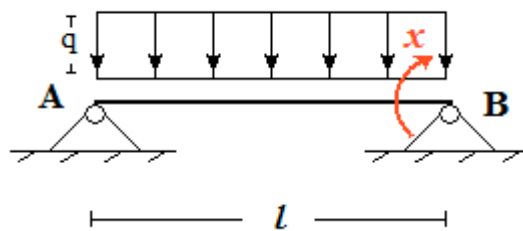
Utilizzando il metodo delle forze



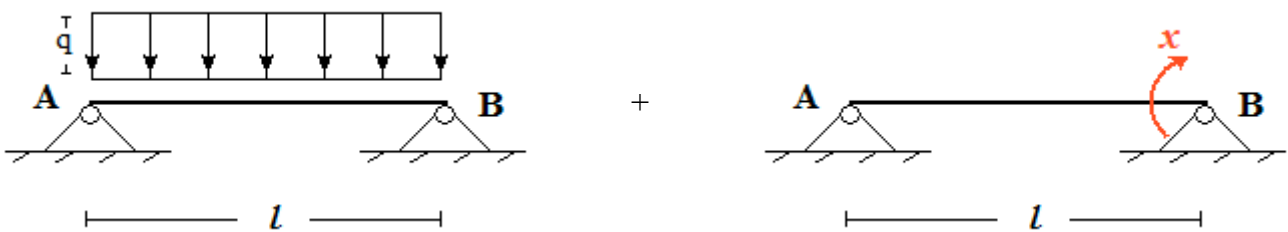
La relativa equazione di congruenza

$$\varphi_{BA} = \varphi_{BC}$$

Studiando quindi i sottosistemi



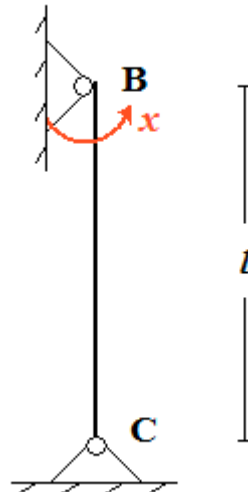
Per sovrapposizione degli effetti



$$\varphi_{BA} = +\frac{ql^3}{24EI}$$

$$\varphi_{BA} = -\frac{xl}{3EI}$$

$$\varphi_{BC} = +\frac{xl}{3EI}$$

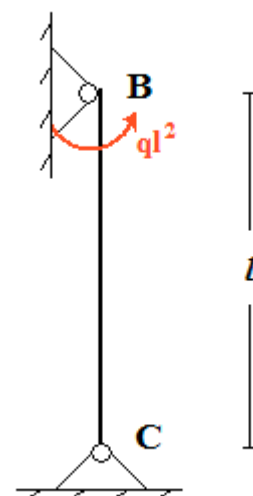
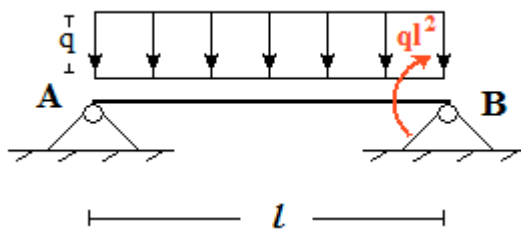


Riprendendo quindi l'equazione di congruenza

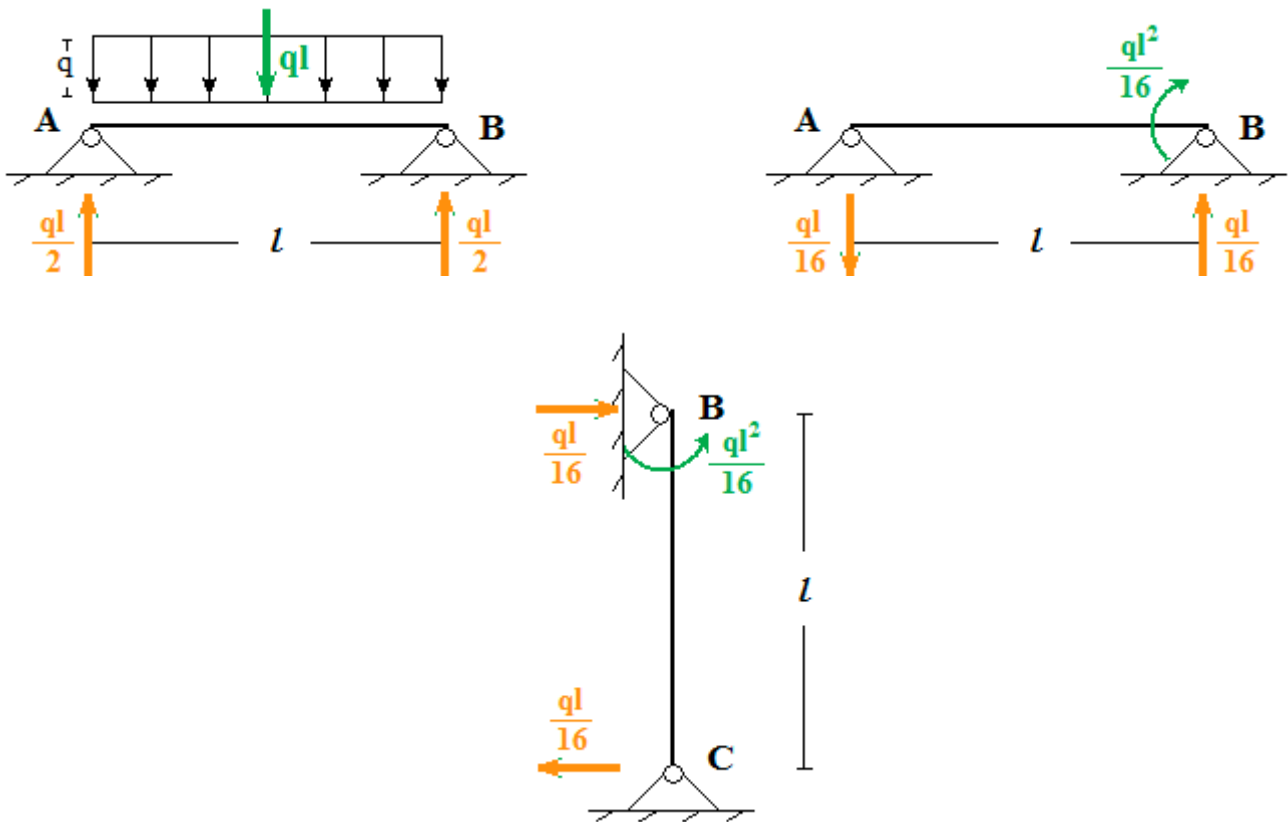
$$+\frac{ql^3}{24EI} - \frac{xl}{3EI} = \frac{xl}{3EI}$$

da cui $x = \frac{ql^2}{16}$

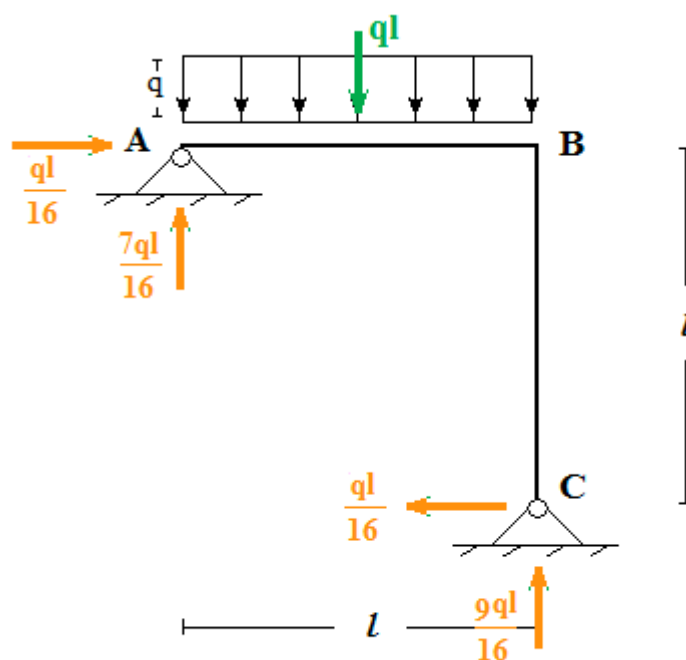
Riassumendo



Riapplicando il principio di sovrapposizione degli effetti per il calcolo delle reazioni vincolari



Si ha



Diagrammi

