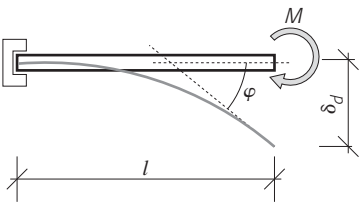
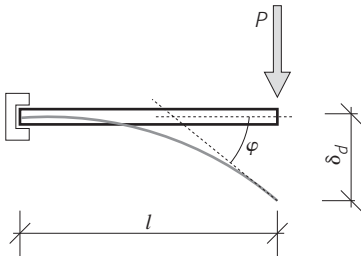
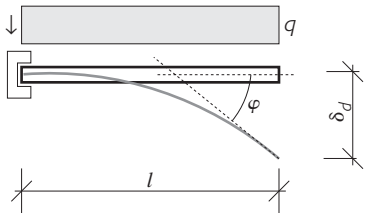
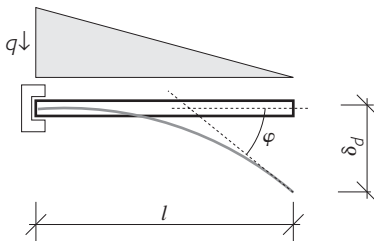
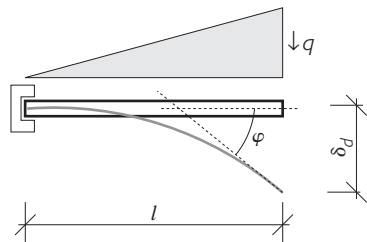


# 3

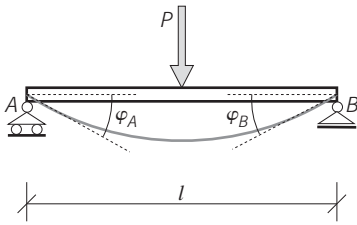
## Caratteristiche di sollecitazione e deformazioni elastiche

### CS1 Travi isostatiche

<p><b>1</b></p>  <p><math>M = \text{costante} \quad V = 0 \quad \varphi = +\frac{Ml}{EI} \quad \delta_d = +\frac{Ml^2}{2EI}</math></p>	<p><b>2</b></p>  <p><math>M_{\max} = Pl \quad V = P \quad \varphi = +\frac{Pl^2}{2EI} \quad \delta_d = +\frac{Pl^3}{3EI}</math></p>
<p><b>3</b></p>  <p><math>M_{\max} = \frac{ql^2}{2}</math>  <math>V_{\max} = ql</math>  <math>\varphi = +\frac{ql^3}{6EI}</math>  <math>\delta_d = \frac{ql^4}{8EI}</math></p>	
<p><b>4</b></p>  <p><math>M_{\max} = \frac{ql^2}{3} \quad V_{\max} = \frac{ql}{2} \quad \varphi = +\frac{ql^3}{24EI} \quad \delta_d = \frac{ql^4}{30EI}</math></p>	<p><b>5</b></p>  <p><math>M_{\max} = \frac{2}{3}ql^2 \quad V_{\max} = \frac{ql}{2} \quad \varphi = +\frac{ql^3}{8EI} \quad \delta_d = \frac{11}{120} \cdot \frac{ql^4}{EI}</math></p>

## CS1 Travi isostatiche (seguito)

6



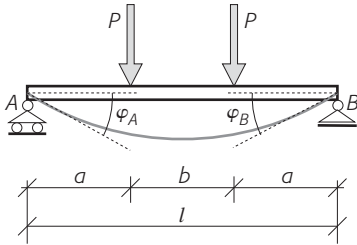
$$M_{max} = \frac{Pl}{4} \text{ in mezzeria}$$

$$V_{max} = \frac{P}{2}$$

$$\varphi_A = -\varphi_B = \frac{Pl^2}{16EI}$$

$$\delta_d = \delta_{1/2} = \frac{Pl^3}{48EI}$$

7



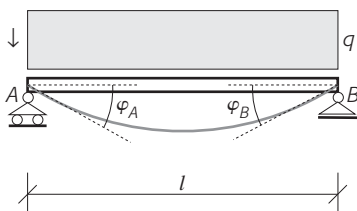
$$M_{max} = Pa \text{ in mezzeria}$$

$$V_{max} = P$$

$$\varphi_A = -\varphi_B = Pa \cdot \frac{l-a}{12EI}$$

$$\delta_d = \delta_{1/2} = \frac{Pa}{24EI} \cdot (3l^2 - 4a^2)$$

8



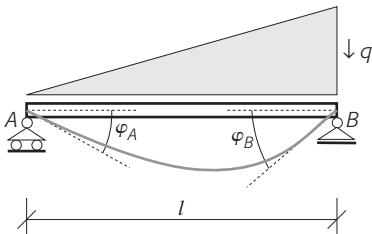
$$M_{max} = \frac{ql^2}{8} \text{ in mezzeria}$$

$$V_{max} = \frac{ql}{2}$$

$$\varphi_A = -\varphi_B = \frac{ql^3}{24EI}$$

$$\delta_d = \delta_{1/2} = \frac{5}{384} \cdot \frac{ql^4}{EI}$$

9



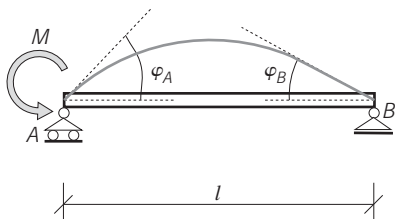
$$M_{max} = 0,064 ql^2$$

$$V_{max} = \frac{ql}{3}$$

$$\varphi_A = \frac{2}{360} \cdot \frac{ql^3}{EI} \quad \varphi_B = -\frac{8}{360} \cdot \frac{ql^3}{EI}$$

$$\delta_d = \delta_{1/2} = 0,0065 \frac{ql^4}{EI}$$

10



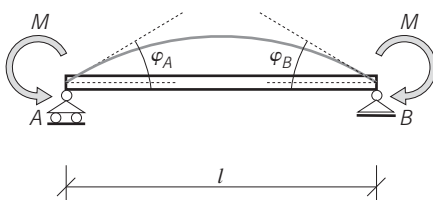
$$M_{max} = M_A = M$$

$$V_{max} = \frac{M}{l}$$

$$\varphi_A = \frac{Ml}{3EI} \quad \varphi_B = +\frac{Ml^3}{6EI}$$

$$\delta_d = \delta_{1/2} = -\frac{1}{16} \cdot \frac{Ml^2}{EI}$$

11



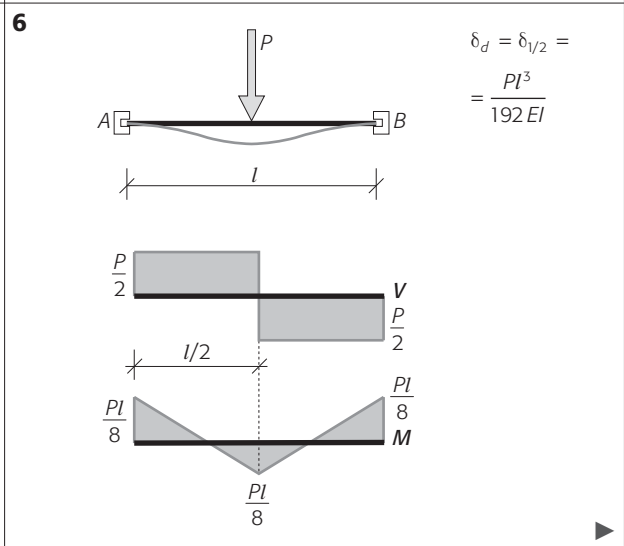
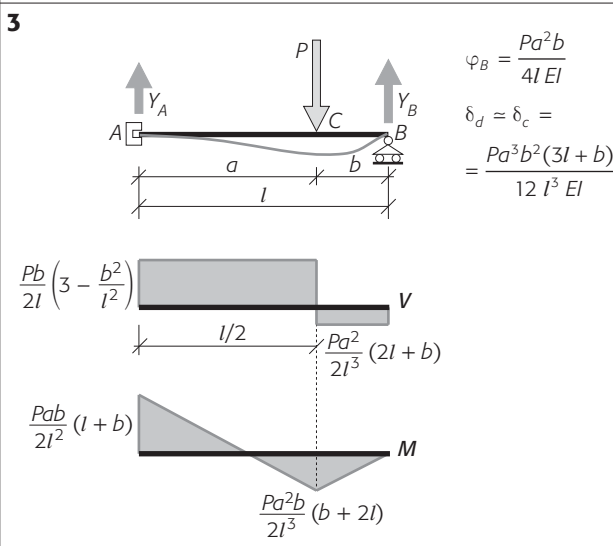
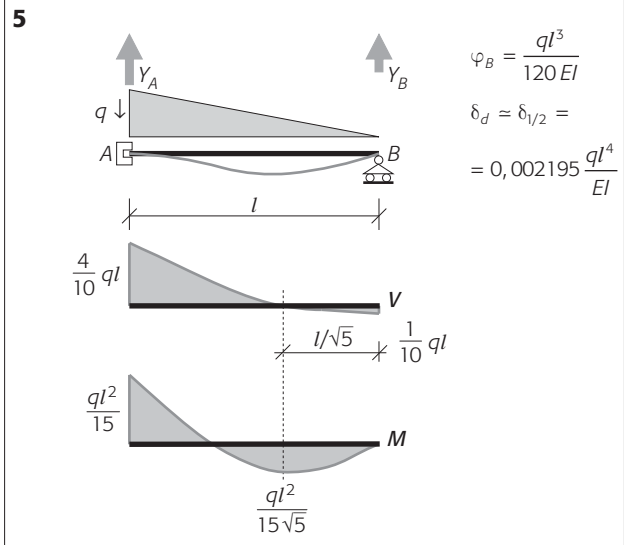
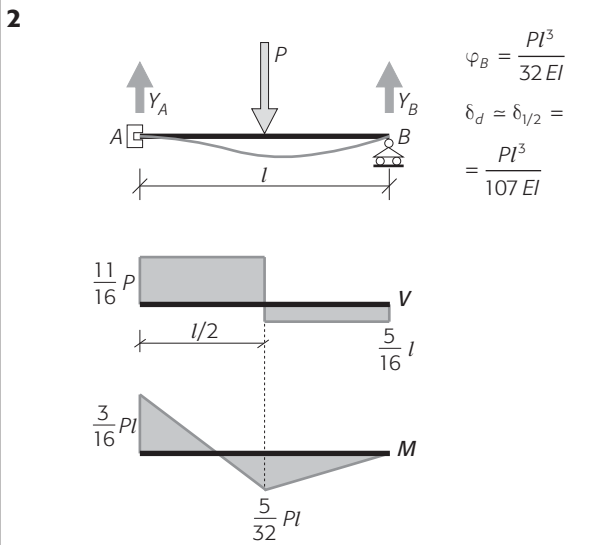
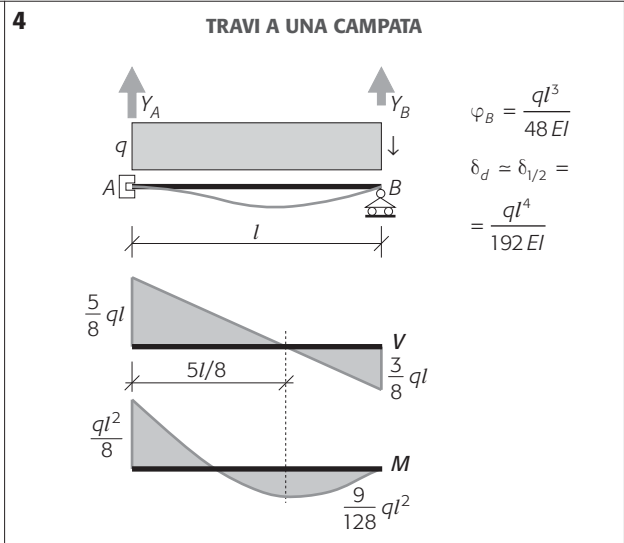
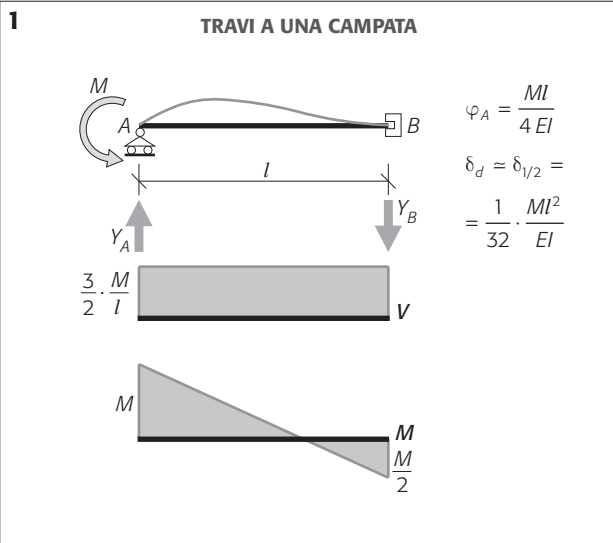
$$M_{max} = \text{costante}$$

$$V = 0$$

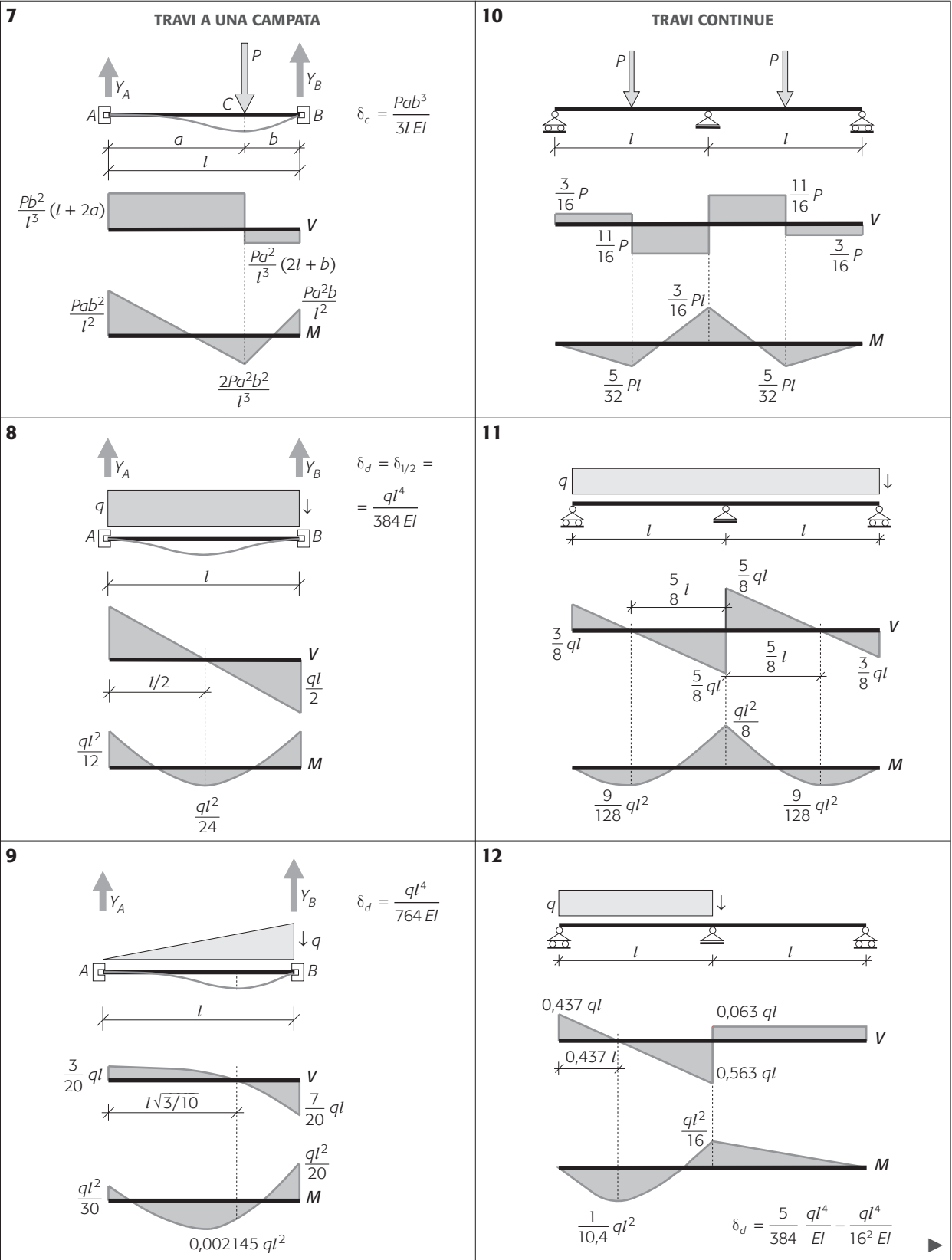
$$-\varphi_A = \varphi_B = \frac{Ml}{2EI}$$

$$\delta_d = \delta_{1/2} = -\frac{Ml^2}{8EI}$$

**CS2** Travi iperstatiche



**CS2** Travi iperstatiche (seguito)



**CS2** Travi iperstatiche (seguito)

