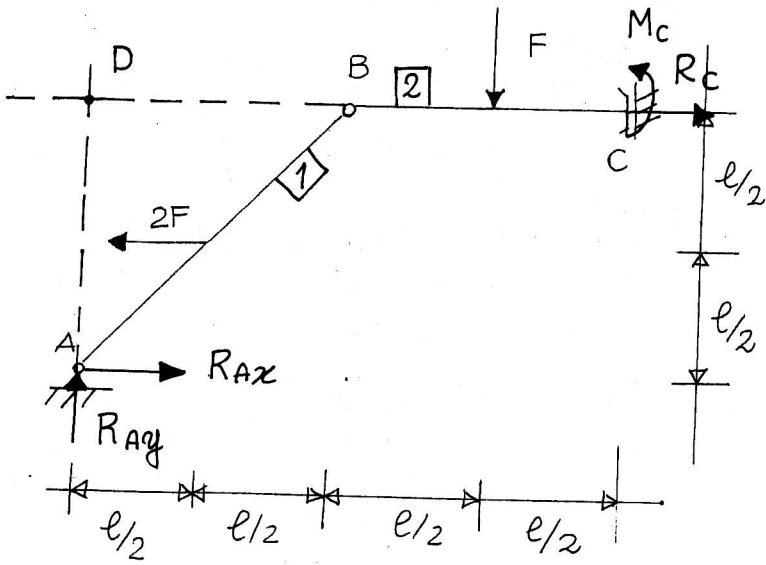


ESERCIZI SUL CALCOLO DELLE REAZIONI VINCOLARI IN UN ARCO A TRE CERNIERE
SOLUZIONI

ESERCIZIO 1



$$\sum M_B^{(1)} = 0 \quad \boxed{M_c = Fl/2}$$

$$\sum F_y^{(1+2)} = 0 \quad \boxed{R_{Ay} = F}$$

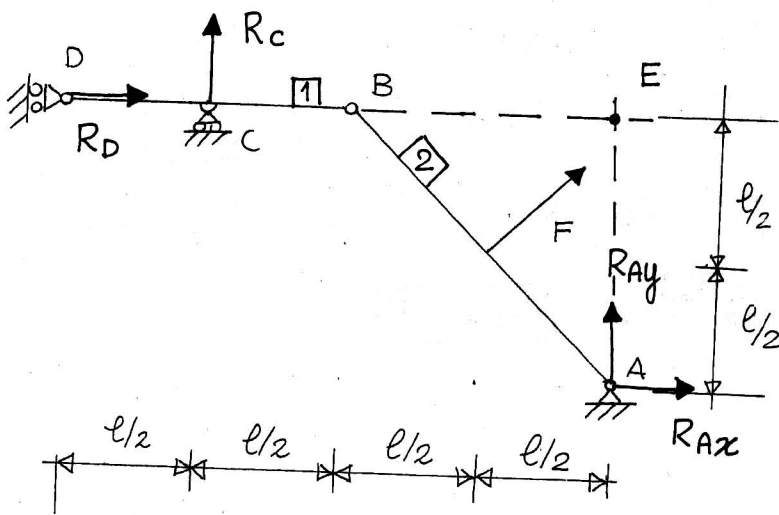
$$\sum M_A^{(1+2)} = 0 \quad R_c l = 2Fl/2 - \frac{3}{2}lF + M_c$$

$$\boxed{R_c = 0}$$

$$\sum M_D^{(1+2)} = 0 \quad R_{Ax} l = 2Fl/2 + F \frac{3}{2}l - M_c$$

$$\boxed{R_{Ax} = 2F}$$

ESERCIZIO 2



$$\sum M_B^{(1)} = 0 \quad \boxed{R_c = 0}$$

$$\sum F_y^{(1+2)} = 0 \quad \boxed{R_{Ay} = -F/\sqrt{2}}$$

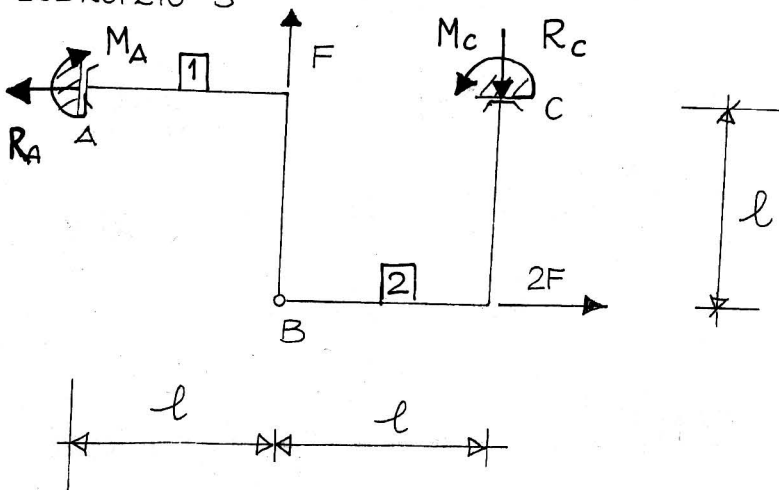
$$\sum M_A^{(1+2)} = 0 \quad R_D l = -F \frac{l}{\sqrt{2}}$$

$$\boxed{R_D = -F/\sqrt{2}}$$

$$\sum M_E^{(1+2)} = 0 \quad R_{Ax} l = 0$$

$$\boxed{R_{Ax} = 0}$$

ESERCIZIO 3



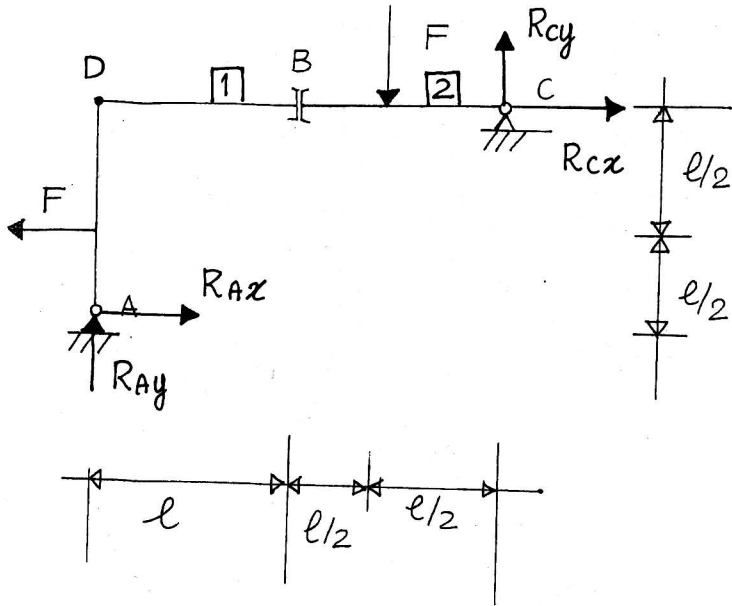
$$\sum F_x^{(1+2)} = 0 \quad \boxed{R_A = 2F}$$

$$\sum F_y^{(1+2)} = 0 \quad \boxed{R_c = F}$$

$$\sum M_B^{(2)} = 0 \quad M_c = R_c l \quad \boxed{M_c = Fl}$$

$$\sum M_B^{(1)} = 0 \quad M_A = R_A l \quad \boxed{M_A = 2Fl}$$

ESERCIZIO 4



$$\sum F_y^{[2]} = 0 \quad R_{cy} = F$$

$$\sum M_A^{[1+2]} = 0 \quad R_{cx}l = 2R_{cy}l - F\frac{3}{2}l + F\frac{l}{2}$$

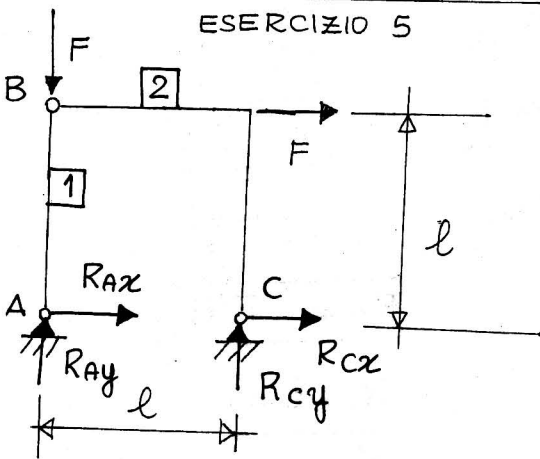
$$R_{cx} = F$$

$$\sum M_D^{[1+2]} = 0 \quad R_{ax}l = -R_{cy}2l + F\frac{3}{2}l + F\frac{l}{2}$$

$$R_{ax} = 0$$

$$\sum F_y^{[1+2]} = 0 \quad R_{ay} = 0$$

ESERCIZIO 5



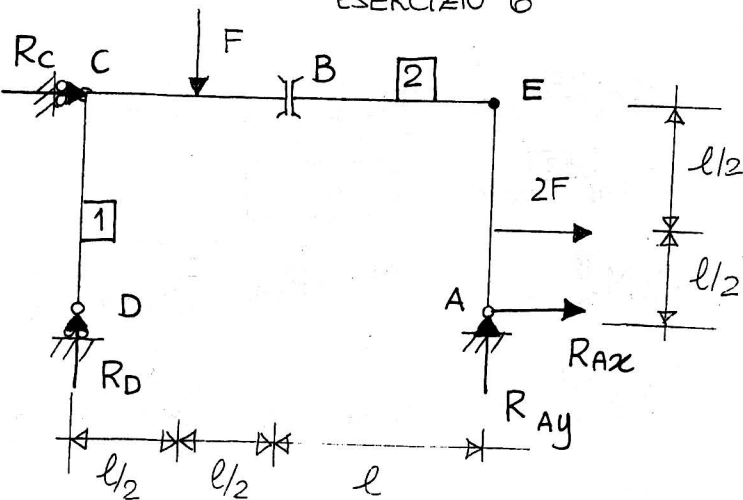
$$\sum M_B^{[1]} = 0 \quad R_{ax} = 0$$

$$\sum M_A^{[1+2]} = 0 \quad R_{cy}l = Fl \quad R_{cy} = F$$

$$\sum M_C^{[1+2]} = 0 \quad R_{ay}l = -Fl + Fl \quad R_{ay} = 0$$

$$\sum F_x^{[1+2]} = 0 \quad R_{cx} = -F$$

ESERCIZIO 6



$$\sum F_y^{[1]} = 0 \quad R_D = F$$

$$\sum F_y^{[1+2]} = 0 \quad R_{ay} = F - R_D \quad R_{ay} = 0$$

$$\sum M_A^{[1+2]} = 0 \quad R_{cx}l = -R_D2l + F\frac{3}{2}l - 2F\frac{l}{2}$$

$$R_{cx} = -\frac{3}{2}F$$

$$\sum M_E^{[1+2]} = 0 \quad R_{ax}l = -2F\frac{l}{2} - F\frac{3}{2}l + R_D2l$$

$$R_{ax} = -F/2$$