

# SCHOOLEASY

APPUNTI FACILI PER TUTTI



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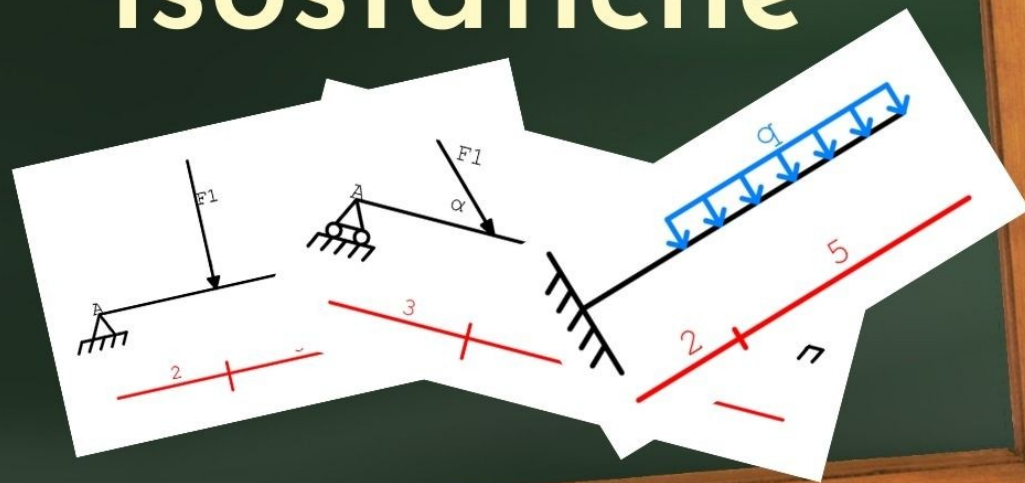


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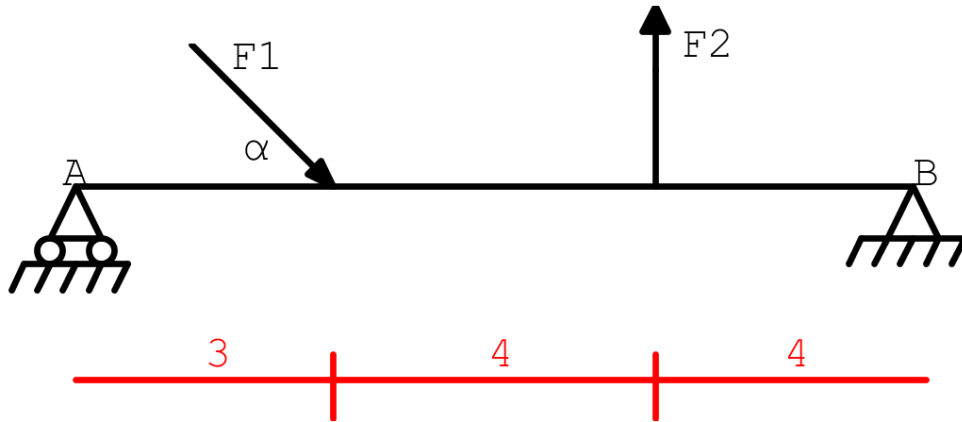
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# Esercizi sulle travi isostatiche



# TRAVE ISOSTATICA 2

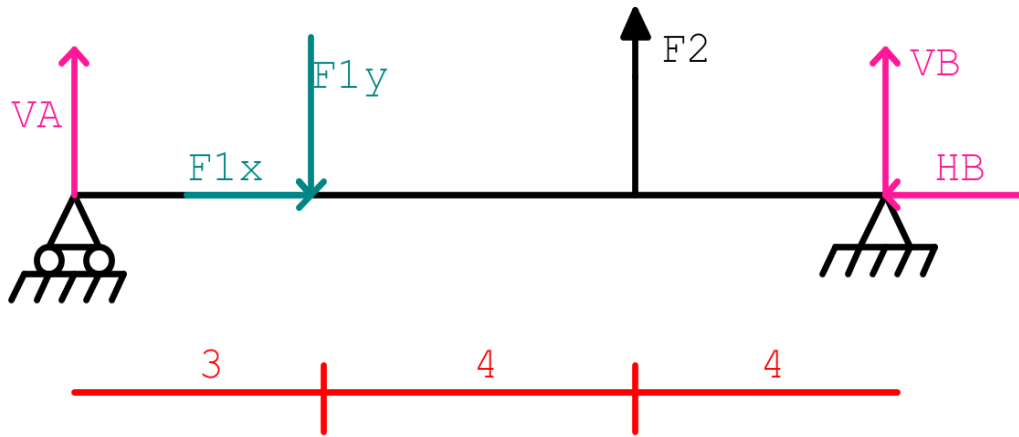
Determinare le reazioni vincolari della trave in figura



$$F_1 = 100 \text{ N}$$
$$F_2 = 300 \text{ N}$$
$$\alpha = 30^\circ$$

# TRAVE ISOSTATICA 2

Determinare le reazioni vincolari della trave in figura

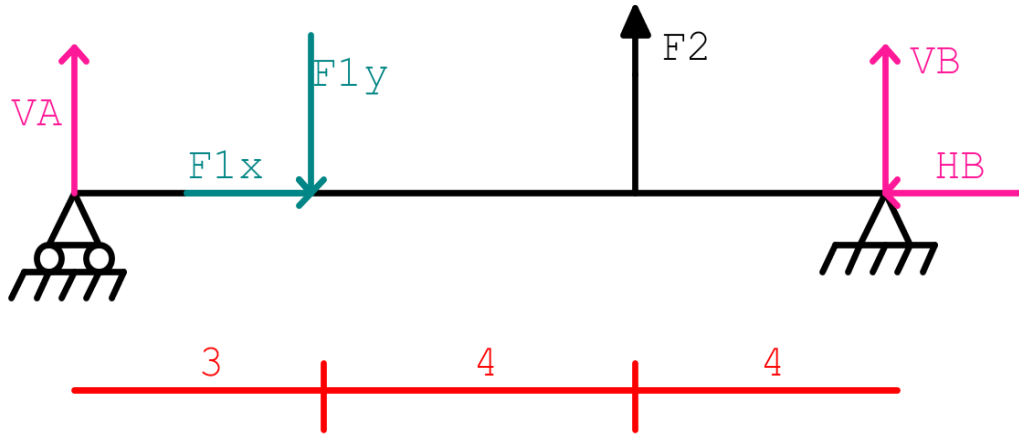


$$F_{1x} = F_1 \cdot \cos(30) = 86.60 \text{ N}$$

$$F_{1y} = F_1 \cdot \sin(30) = 50 \text{ N}$$

# TRAVE ISOSTATICA 2

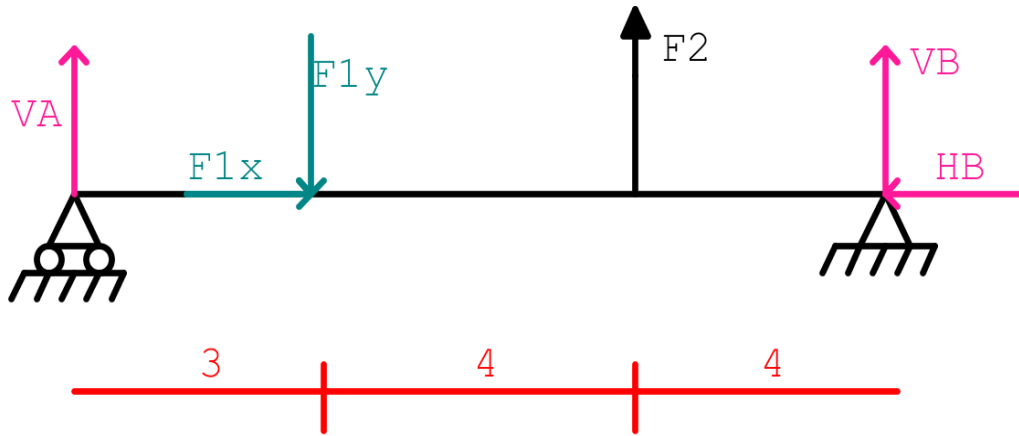
Determinare le reazioni vincolari della trave in figura



$$\begin{cases} \Sigma_x: 0 = F_{1x} - HB \\ \Sigma_y: 0 = V_A - F_{1y} + F_2 + V_B \\ \Sigma_{M(A)}: 0 = -F_{1y} \cdot 3 + F_2 \cdot 7 + V_B \cdot 11 \end{cases}$$

# TRAVE ISOSTATICA 2

Determinare le reazioni vincolari della trave in figura

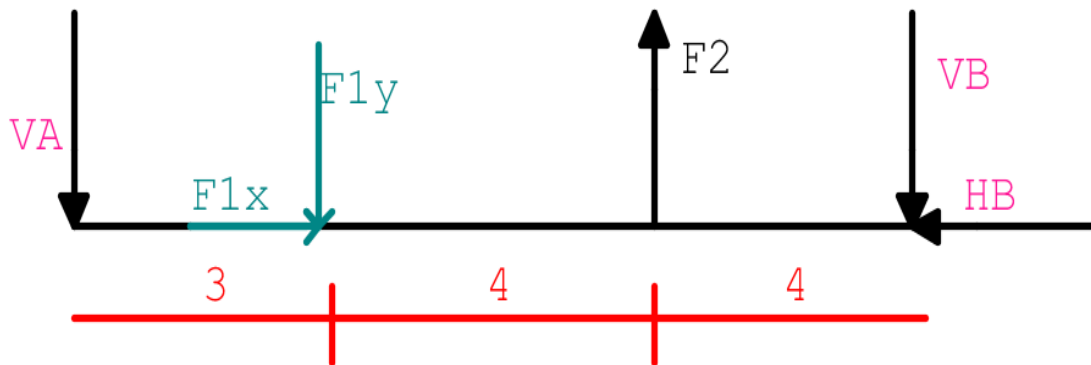


$$\begin{cases} \Sigma_x: 0 = F_{1x} - H_B \\ \Sigma_y: 0 = V_A - F_{1y} + F_2 + V_B \\ \Sigma_{M(A)}: 0 = -F_{1y} \cdot 3 + F_2 \cdot 7 + V_B \cdot 11 \end{cases}$$

$$H_B = F_{1x} = 86.60 \text{ N}$$

# TRAVE ISOSTATICA 2

Determinare le reazioni vincolari della trave in figura



$$\begin{cases} \Sigma_y: 0 = V_A - F1_y + F2 + V_B \\ \Sigma_{M(A)}: 0 = -F1_y \cdot 3 + F2 \cdot 7 + V_B \cdot 11 \end{cases}$$

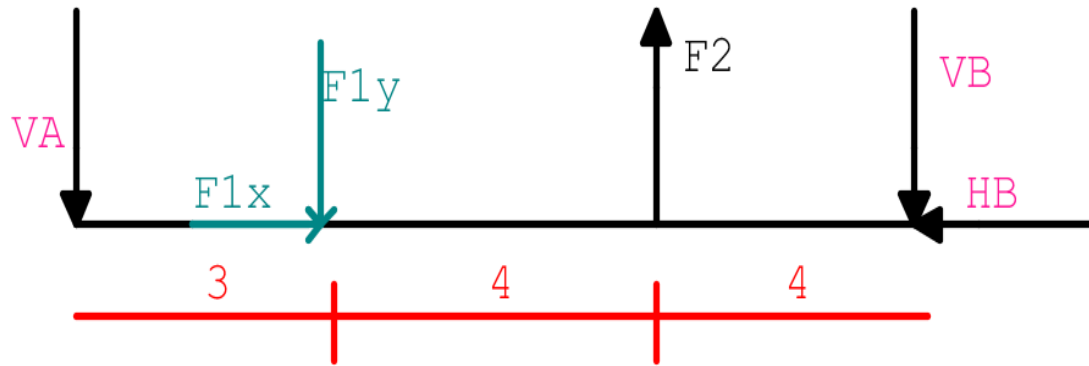
$$\begin{cases} 0 = V_A - 50 + 300 + V_B \\ 0 = -50 \cdot 3 + 300 \cdot 7 + V_B \cdot 11 \end{cases}$$

$$\begin{cases} 0 = V_A - 50 + 300 + V_B \\ 0 = 1950 + V_B \cdot 11 \end{cases}$$

$$\begin{cases} V_A = -72,70 \text{ N} \\ V_B = -177,27 \end{cases}$$

# TRAVE ISOSTATICA 2

Determinare le reazioni vincolari della trave in figura



$$\begin{cases} H_B = 86.60 \text{ N} \\ V_A = 72.70 \text{ N} \\ V_B = 177.27 \end{cases}$$

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