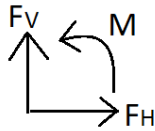


Convención de signos positiva



3.

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|----|-------------------------|-------------------------|-------------------------|
| a) | $V_A = 17,5 \text{ kN}$ | $V_B = 17,5 \text{ kN}$ | $H_A = 0$ |
| b) | $V_A = 17,5 \text{ kN}$ | $V_B = 17,5 \text{ kN}$ | $H_A = 0$ |
| c) | $V_A = -5 \text{ kN}$ | $V_B = 5 \text{ kN}$ | $H_A = 0$ |
| d) | $V_A = 8 \text{ kN}$ | $H_A = 0$ | $M_A = 0$ |
| e) | $V_B = 0 \text{ kN}$ | $H_B = 0$ | $M_B = 100 \text{ kNm}$ |
| f) | $V_A = -0,6 \text{ t}$ | $H_A = 0,4 \text{ t}$ | $M_A = -1,2 \text{ tm}$ |
| g) | $V_A = 0,83 \text{ kN}$ | $V_B = 9,17 \text{ kN}$ | $H_C = 0$ |

4.

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|----|---|-------------------------|-------------------------|
| a) | $A = -1000 \text{ kg}$ | $B = 500 \text{ kg}$ | $C = 2000 \text{ kg}$ |
| b) | Los vínculos concurren al punto C. Hipostático. No se puede calcular. | | |
| c) | $V_A = 0$ | $H_A = 7,5 \text{ kN}$ | $H_B = -7,5 \text{ kN}$ |
| d) | $V_A = 0$ | $H_A = 7,5 \text{ kN}$ | $H_B = -7,5 \text{ kN}$ |
| e) | 1 chapa con 4 vínculos. Hiperestático. No se puede calcular. | | |
| f) | $H_A = -16,7 \cdot \rho$ | $H_B = 16,7 \cdot \rho$ | $V_B = 25 \cdot \rho$ |

5.

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|----|--------------------------|--------------------------|-------------------------|
| a) | $V_A = 5 \text{ kN}$ | $H_A = 0$ | $V_B = 4 \text{ kN}$ |
| b) | $V_A = 0,145 \text{ kN}$ | $H_A = -3,53 \text{ kN}$ | $V_B = 7,89 \text{ kN}$ |
| c) | $V_A = 0$ | $H_A = 1,5 \text{ kN}$ | $V_B = 0$ |
| d) | $V_A = 0$ | $H_A = 0$ | $M_A = 0$ |
| e) | $V_A = 2 \text{ kN}$ | $H_A = 0$ | $V_B = 8 \text{ kN}$ |
| f) | $V_A = 0$ | $H_A = 1,5 \text{ kN}$ | $M_A = 0$ |

6.

- | | | | |
|----|------------------------|-----------------------|--------------------------|
| a) | $V_A = 0,875$ | $H_A = -3 \text{ kN}$ | $V_B = 3,125 \text{ kN}$ |
| b) | $V_A = 2,5 \text{ kN}$ | $H_A = 0$ | $V_B = 2,5 \text{ kN}$ |

7.

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|----|-------------------------|-------------------------|--------------------------|
| a) | $V_A = 4,83 \text{ kN}$ | $H_B = 5,66 \text{ kN}$ | $V_B = 6,83 \text{ kN}$ |
| b) | $V_A = 1,33 \text{ kN}$ | $H_A = 0$ | $V_B = 2,67 \text{ kN}$ |
| c) | $V_A = 8 \text{ kN}$ | $H_A = 4,5 \text{ kN}$ | $M_A = 1,25 \text{ kNm}$ |
| d) | $V_A = 4,8 \text{ kN}$ | $H_B = 0$ | $V_B = 8 \text{ kN}$ |

9.

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|----|--------------------------|--------------------------|--------------------------|--------------------------|
| a) | $V_A = 2,67 \text{ kN}$ | $H_A = 5 \text{ kN}$ | $V_B = 28,67 \text{ kN}$ | $V_C = 2 \text{ kN}$ |
| b) | $V_A = 3 \text{ kN}$ | $H_A = -3 \text{ kN}$ | $M_A = -1,5 \text{ kN}$ | $V_C = 3,5 \text{ kN}$ |
| c) | $V_A = 7,25 \text{ kN}$ | $H_A = -7,08 \text{ kN}$ | $V_B = 15,25 \text{ kN}$ | $H_B = -3,92 \text{ kN}$ |
| d) | $V_A = 0,177 \text{ kN}$ | $H_A = -3,5 \text{ kN}$ | $V_B = 1,33 \text{ kN}$ | $V_C = 3,5 \text{ kN}$ |
| e) | $V_A = -1,31 \text{ kN}$ | $H_A = -2,17 \text{ kN}$ | $V_B = 1,31 \text{ kN}$ | $H_B = -1,02 \text{ kN}$ |

10.

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|----|-------------------------|--------------------------|-------------------------|-----------------------|-------------------------|
| a) | $V_A = 2,86 \text{ kN}$ | $H_B = 1,5 \text{ kN}$ | $V_B = 4,94 \text{ kN}$ | $V_C = 4 \text{ kN}$ | $V_D = 1,8 \text{ kN}$ |
| b) | $V_A = -1 \text{ kN}$ | $H_A = -1,73 \text{ kN}$ | $V_B = 5 \text{ kN}$ | $V_C = -3 \text{ kN}$ | $H_C = 1,73 \text{ kN}$ |