

CH_4

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4.1 Types of Beams, Loads and Reactions

Simple Beam

Cantilever Beam

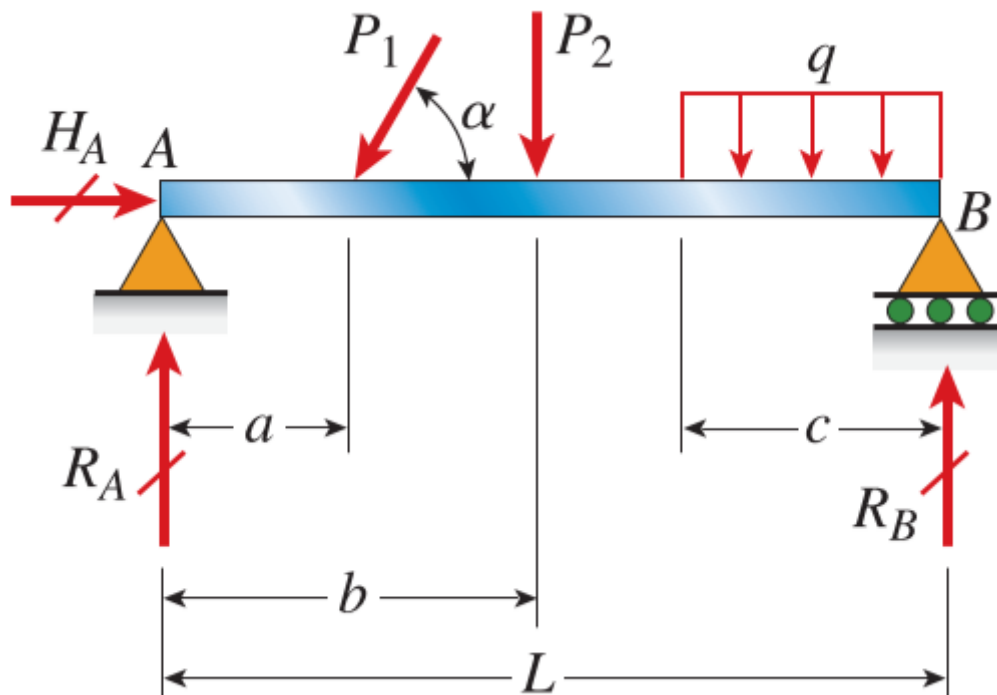
Beam with an Overhang

4.2 Shear Forces and Bending Moments

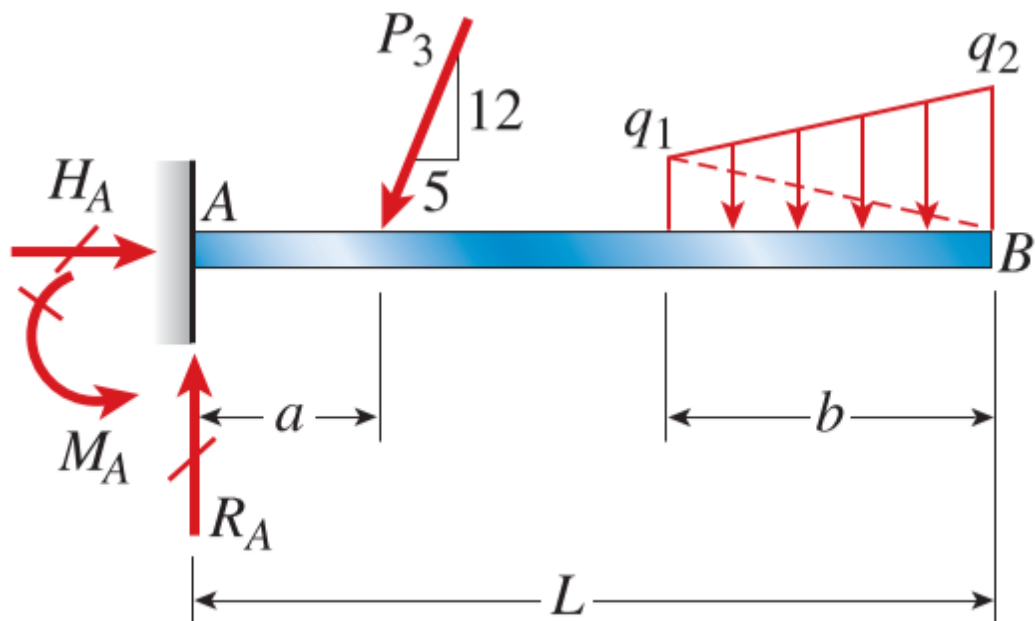
Sign Convention

4.1 Types of Beams, Loads and Reactions

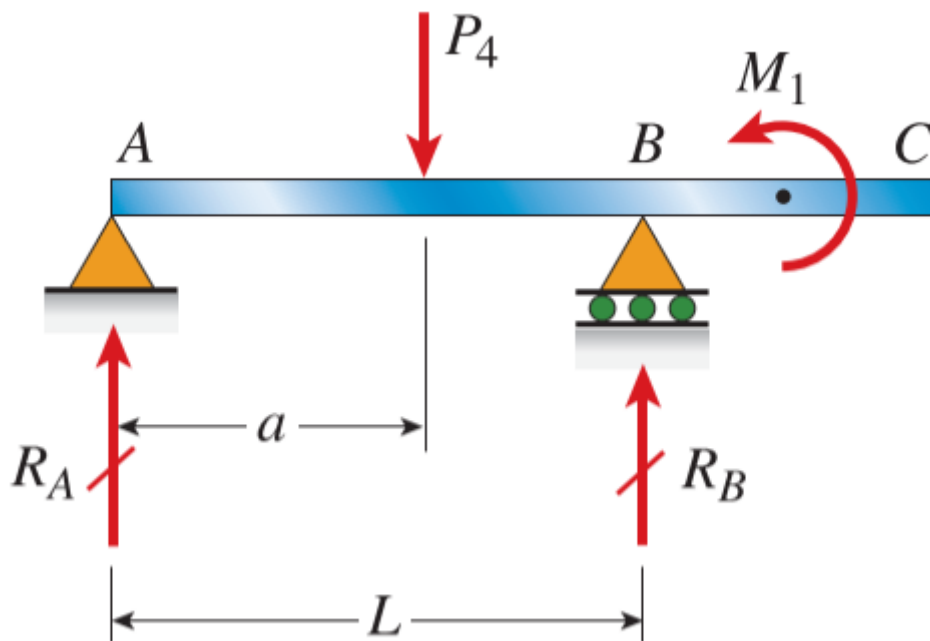
Simple Beam



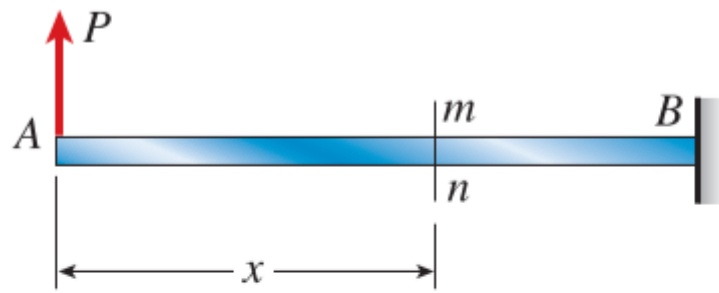
Cantilever Beam



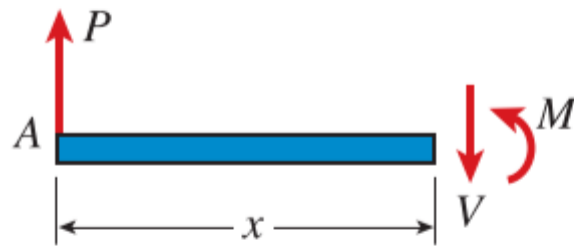
Beam with an Overhang



4.2 Shear Forces and Bending Bending Moments



(a)



(b)

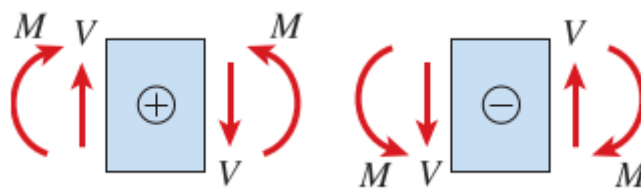


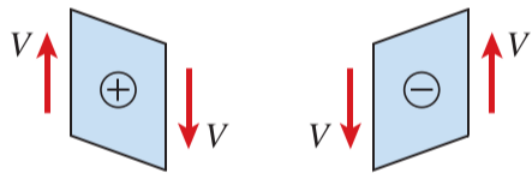
(c)

$$\sum F_{vert} = 0 \quad P - V = 0$$

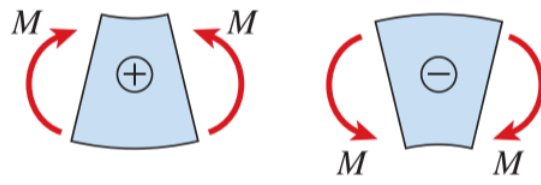
$$\sum M = 0 \quad M - Px = 0$$

Sign Convention





(a)



(b)