

Mecânica Aplicada

Tipos de Apoios e Estruturas Isostáticas

Prof. Luiz Eduardo Miranda J. Rodrigues

www.engbrasil.eng.br



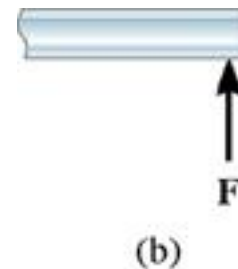
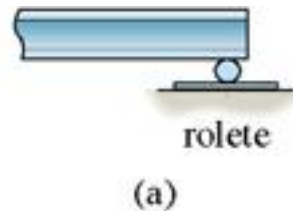
Divulgando a Engenharia e Compartilhando o Conhecimento

Tópicos Abordados

- * Tipos de Apoios.
- * Tipos de Carregamentos.
- * Classificação das Estruturas Quanto ao Tipo de Apoio.

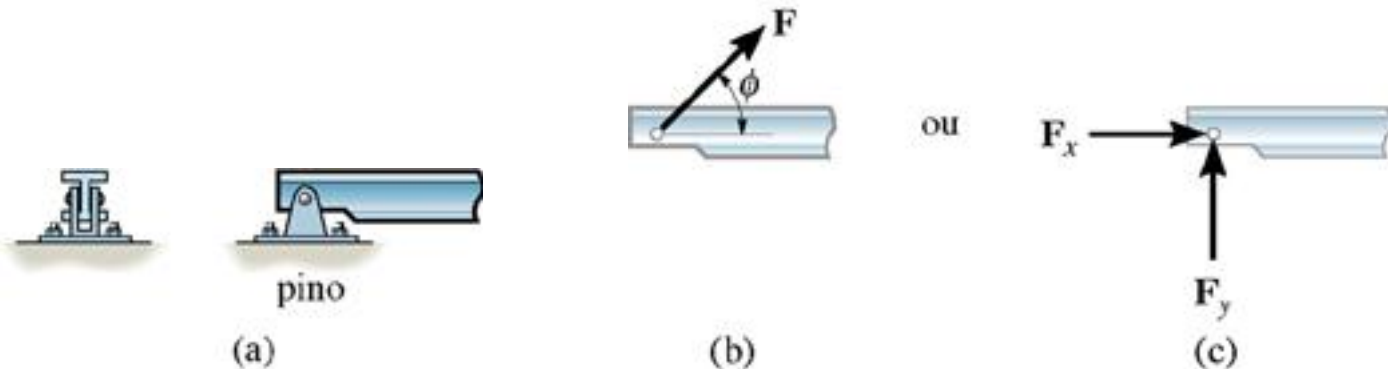
Tipos de Apoios

- * 1) Rolete ou Apoio Móvel.
- * Possui apenas uma incógnita, a reação é uma força que atua perpendicularmente à superfície do ponto de contato.



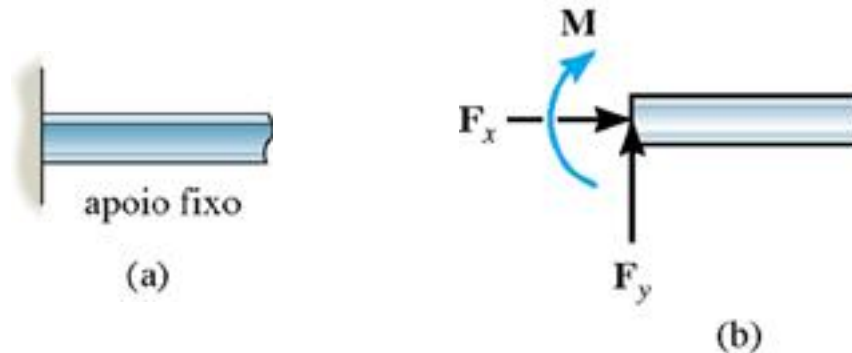
Tipos de Apoios

- * 2) Articulação ou Pino.
- * Possui duas incógnitas, as reações são os dois componentes da força resultante e atuam paralela e perpendicular à superfície do ponto de contato.



Tipos de Apoios

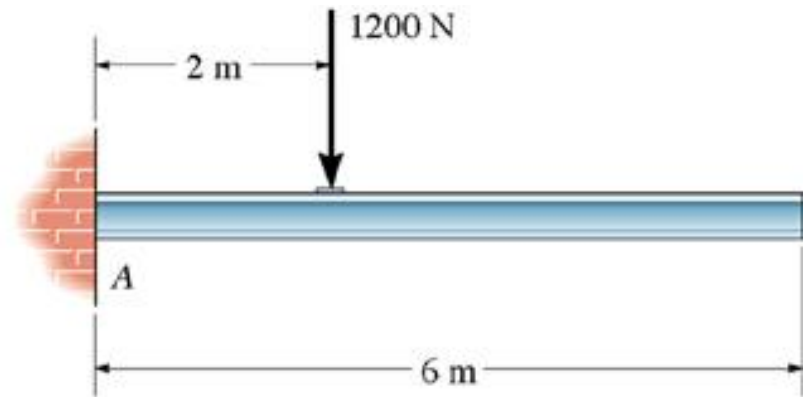
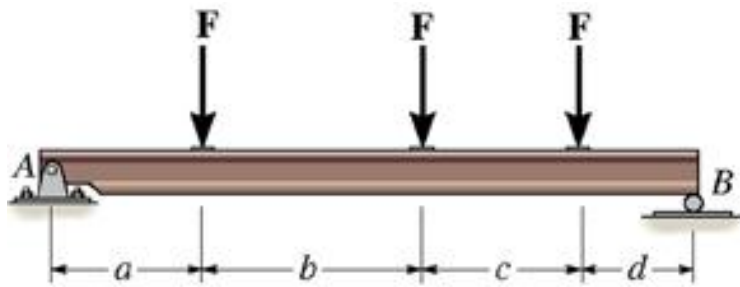
- * 3) Engastamento.
- * Possui três incógnitas, as reações são os dois componentes da força resultante que atuam paralela e perpendicular à superfície do ponto de contato e um momento.



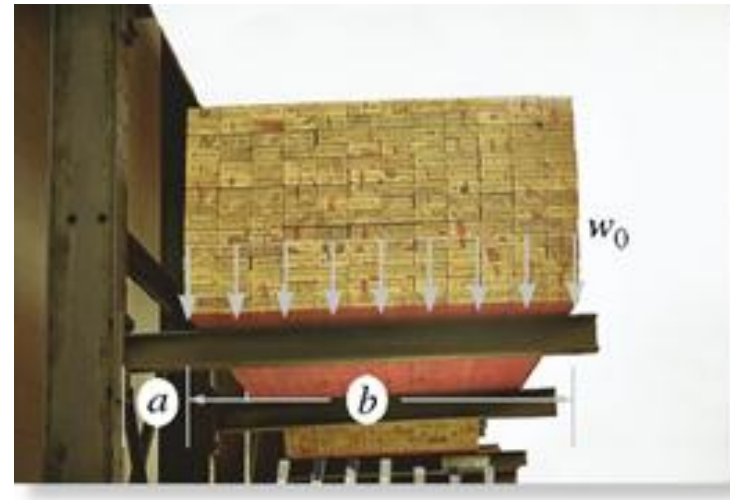
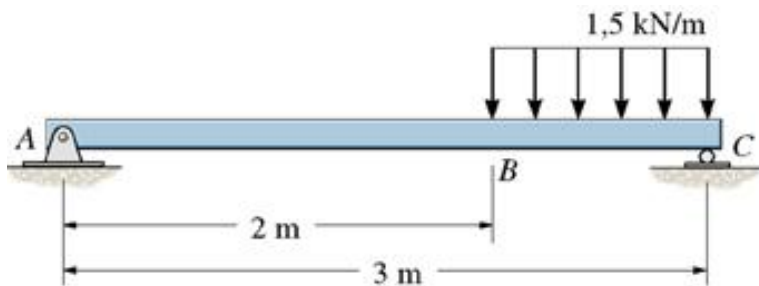
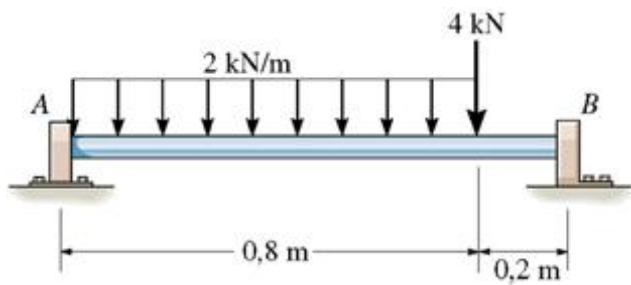
Exemplos de Apoios



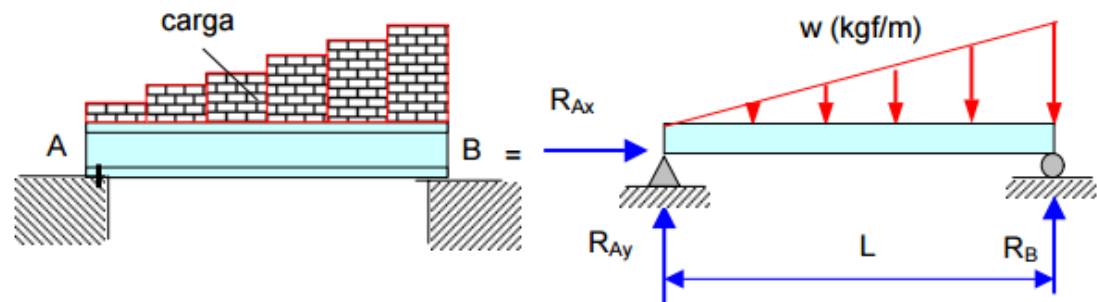
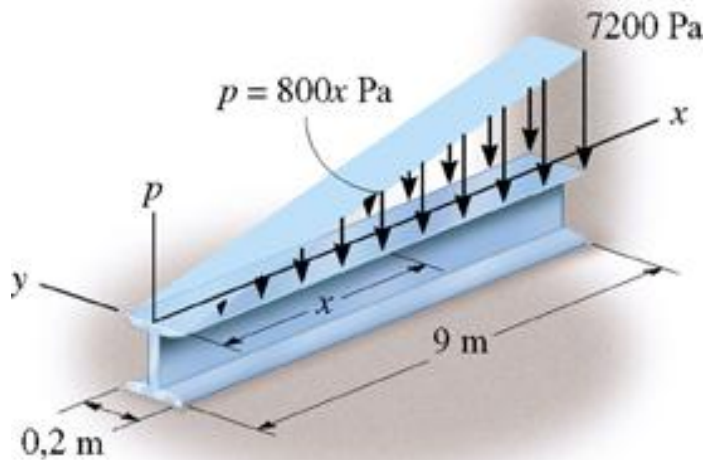
Carga Concentrada



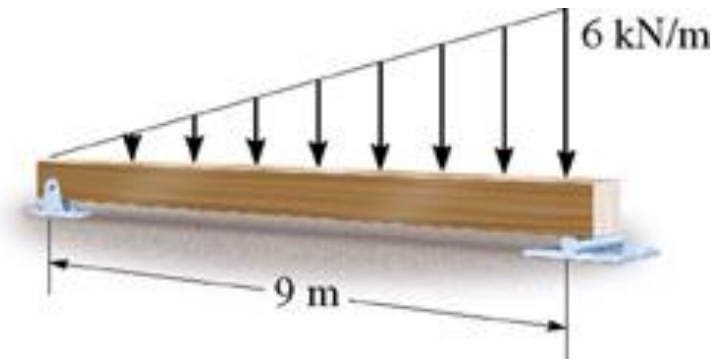
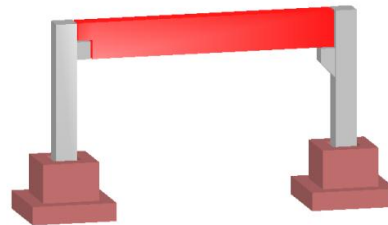
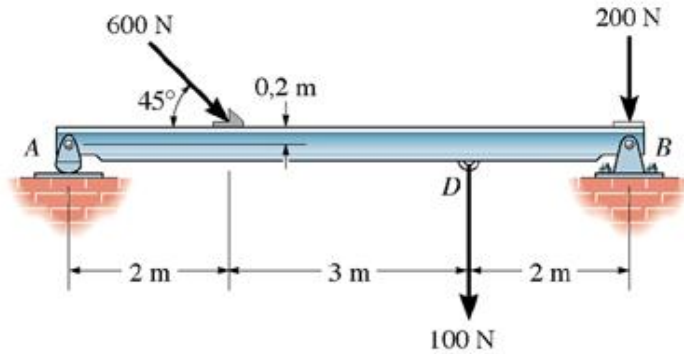
Carga Distribuída Uniforme



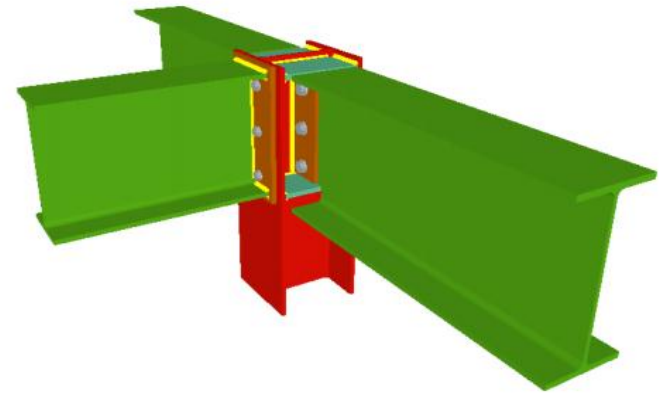
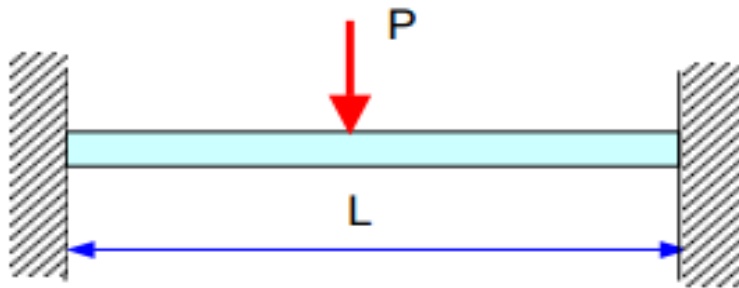
Carga Distribuída Variável



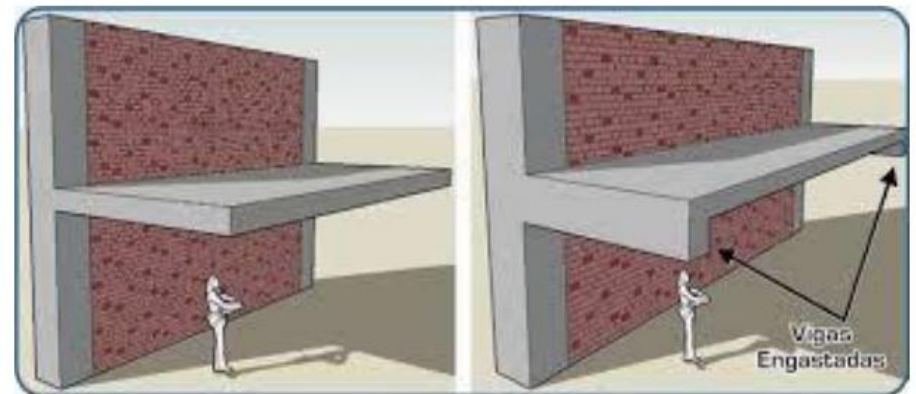
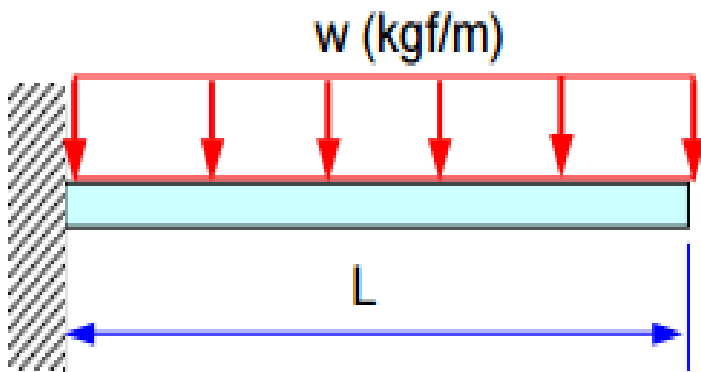
Viga Simplesmente Apoiada



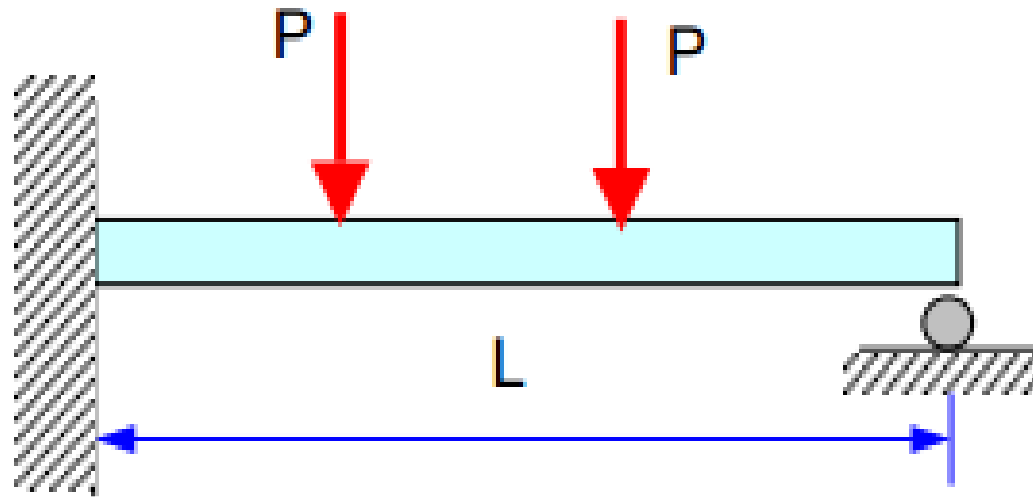
Viga Bi-Engastada



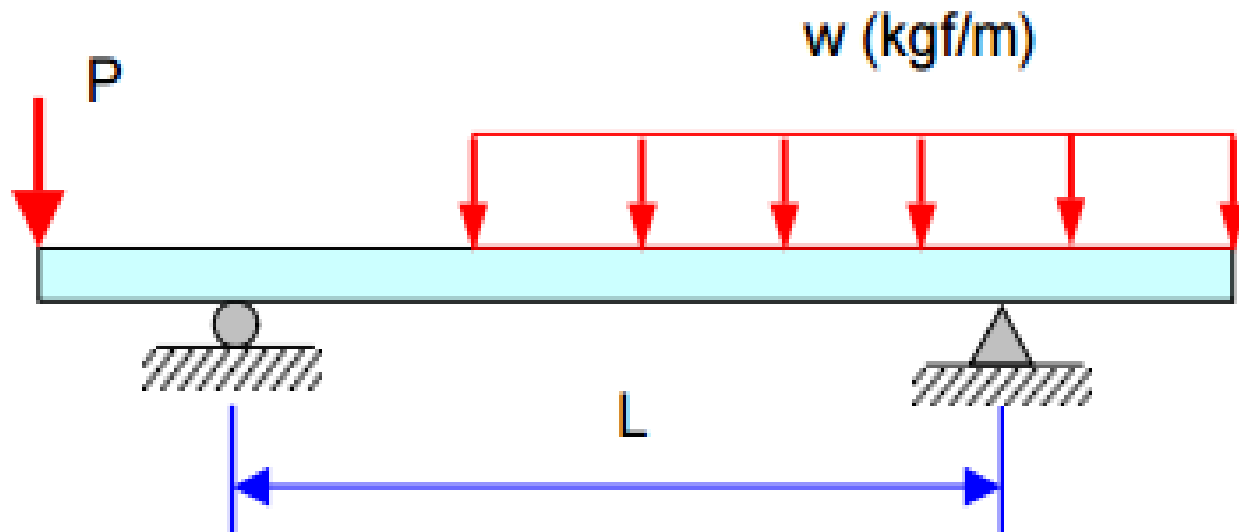
Viga em Balanço



Viga Engastada - Apoiada



Viga com Balanço nas Extremidades



Próxima Aula

- * Solução de Exercícios.