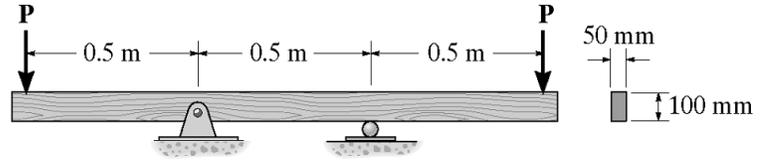
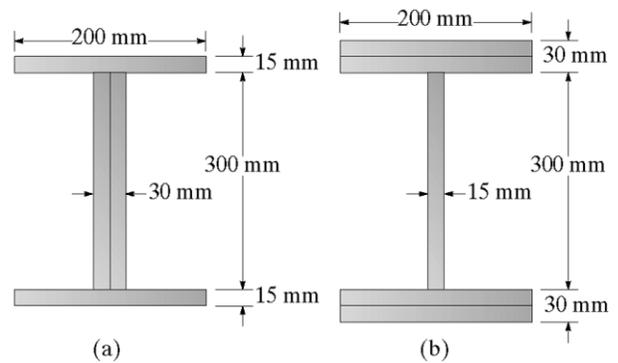


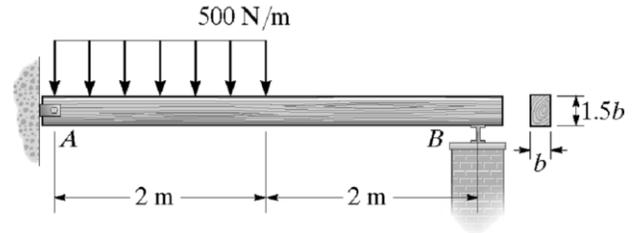
1. The beam has a rectangular cross section as shown. Determine the largest load P that can be supported on its overhanging ends so that the bending stress in the beam does not exceed 10 MPa. 【试求图示矩形截面梁的最大许可荷载 P . 设许用弯曲正应力为 10 MPa。】



2. Two considerations have been proposed for the design of a beam. Determine which one will support a moment of $150 \text{ kN} \cdot \text{m}$ with smaller maximum bending stress. What is that stress? By what percentage is it more effective? 【试决定图示两种截面中的哪一种在 $150 \text{ kN} \cdot \text{m}$ 弯矩的作用下取得较小的最大弯曲正应力，求该应力值及其减小百分比值。】



3. The wood beam shown has a rectangular cross section. Determine its required dimension b if the allowable bending stress is 10 MPa. 【试求图示木梁的最小所需截面尺寸 b 。设许用弯曲正应力为 10 MPa。】



4. The beam is subjected to the loading shown. Determine its required cross-sectional dimension a , if the allowable bending stress for the material is 150 MPa. 【试求图示 T 形梁的最小所需截面尺寸 a 。设许用弯曲正应力为 150 MPa。】

