

Homework for Sections 2.4-2.8

1) Problem 2.9 in text.

2) Problem 2.14 in text.

3) In Sample Problem 2.1 (page 63 in text), let the 30 kN force be replaced by a downward vertical force P . Assume that bars are reinforced at the locations of pins. Let the aluminum and steel bars be elastic–perfectly plastic with yield stresses of 400 MPa and 250 MPa, respectively. Assuming the horizontal bar and pins are sufficiently strong, determine the value of P that will cause collapse of the structure.