



Problem 2: The beam ABCD is loaded by a force $W=27\text{kN}$ by the arrangement shown in the figure. The cable passes over a small frictionless pulley at “B” and is attached at “E” to the vertical arm. Determine expressions for the axial force N , shear force V , and the bending moment M along the length of the beam. Draw the normal, shear, and bending moment diagrams.