

# CVEN 3161 - Spring 2002

## Mechanics of Materials

### Quiz# 1:

#### 1. Problem Statement:

The beam BE is supported by a frictionless pin at B and by an inclined cable from A to D. If the weight  $W$  is attached to the free end of the beam,

- determine the tension in cable AD and the reaction at pin B
- determine the axial force, the shear force and the bending moment on the cross section at C.

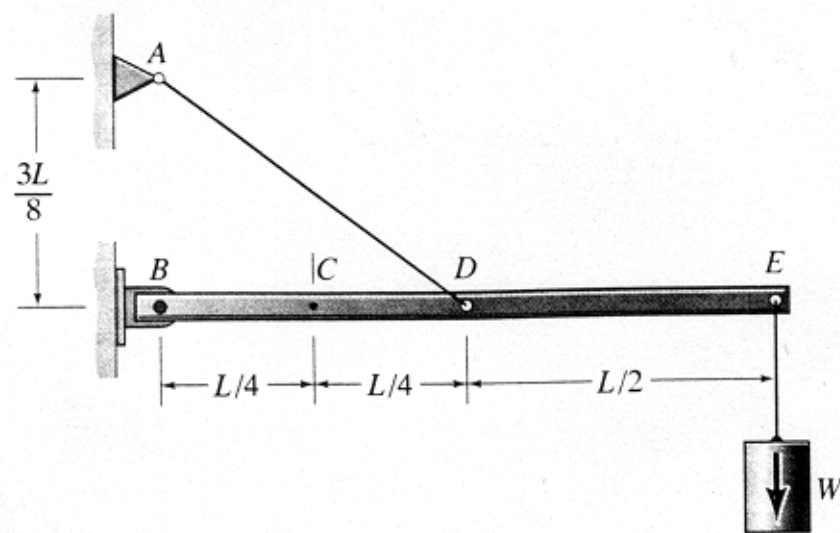


Figure 1: Static Problem: Rigid Beam Suspended by Cable