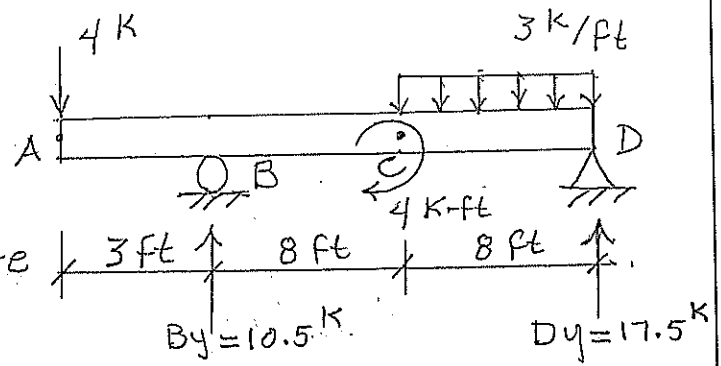


Prob # 1 (40 pts)

For the beam shown,
determine (a) the shear
and bending moment
diagrams, and (b) write
the shear and bending



moment functions for the region $3 \leq x \leq 11$ ft.

Choose the origin of x at A.
(a) is 30 pts, and (b) is 10 pts.

□.

Prob # 2 (40 pts)

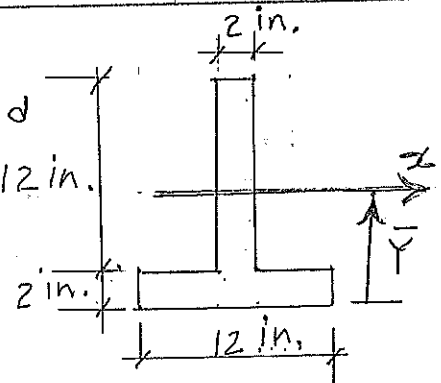
For the inverted T-beam shown, find

(a) the centroid $\bar{Y}$ from its bottom,

(b) the moment of inertia with
respect to the x axis passing

through its centroid found in (a).

(a) is 20 points, and (b) is 20 points.

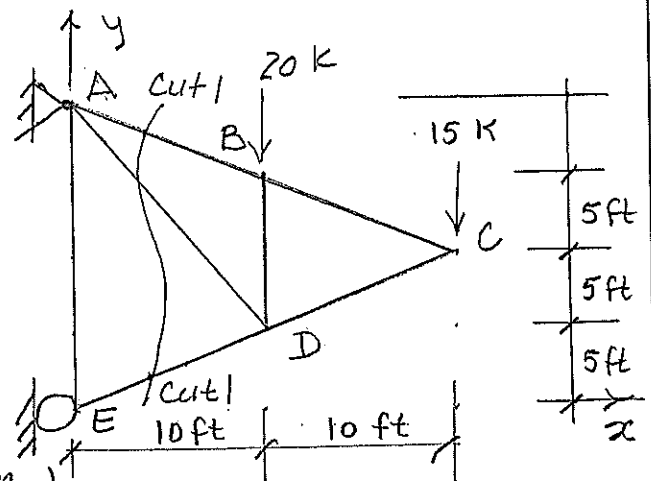


□.

Prob # 3 (20 pts)

using only one moment
equation and the
Method of Sections,
find the force in
Member AD.

(Make your cut 1-1 as shown.)



□.