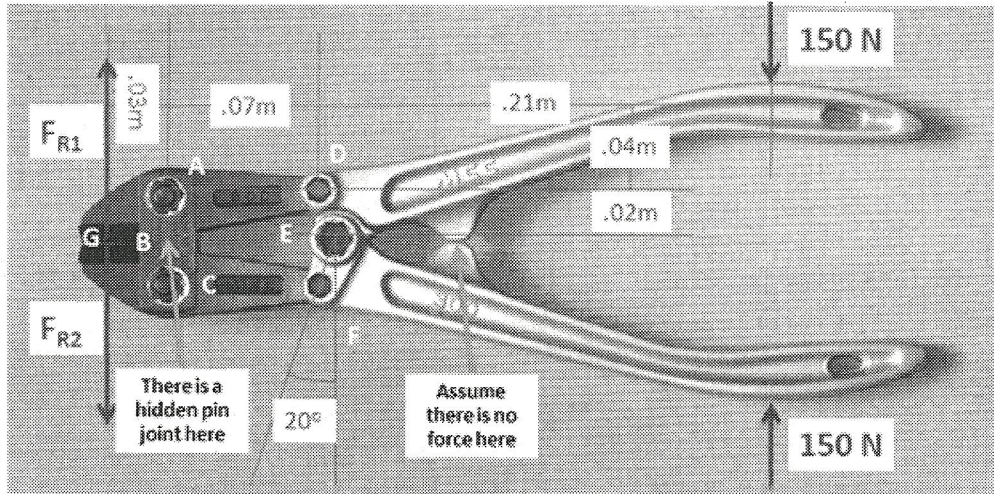


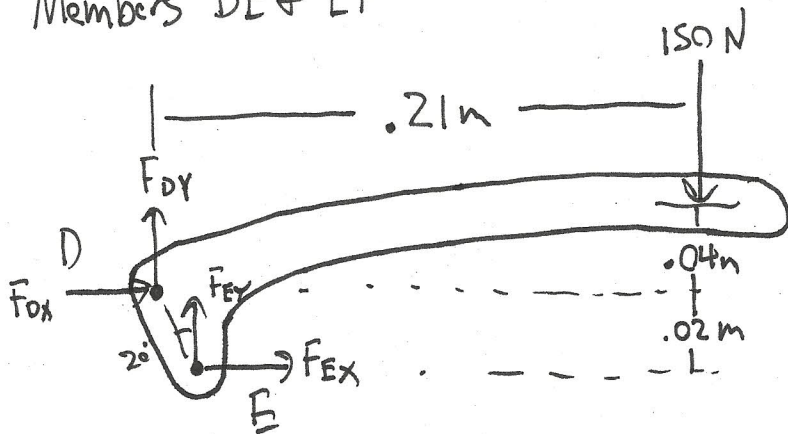
Question 3:

Find all the forces acting on each of the members in the structure below.



Calculations:

Members DE + EF

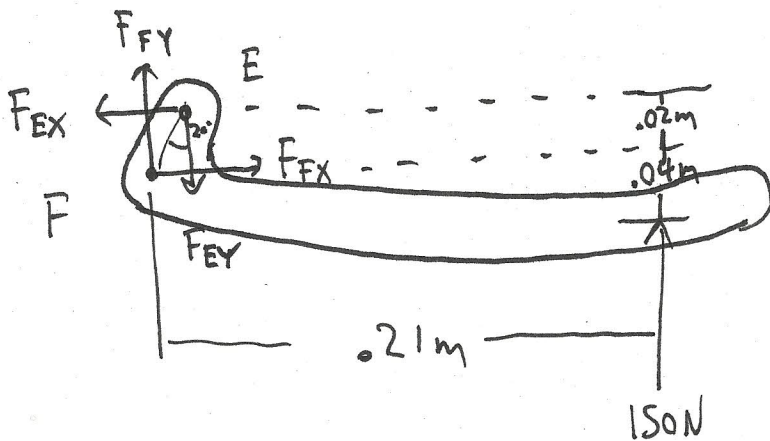


top handle

$$\sum F_x = F_{DX} + F_{EX} = 0$$

$$\sum F_y = F_{DY} + F_{EY} - 150 = 0$$

$$\sum M_D = (.02)F_{EX} + (.02 \tan(20))(F_{EY}) - (.21)(150) = 0$$



bottom handle

$$\sum F_x = -F_{EX} + F_{FX} = 0$$

$$\sum F_y = -F_{EY} + F_{FY} + 150 = 0$$

$$\sum M_F = (.02)F_{EX} - (.02 \tan(20))(F_{EY}) + (.21)(150) = 0$$

