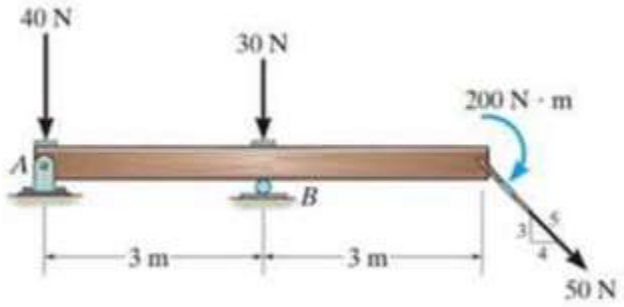
ENGR 8 Assignment 6 In Class Problems

Ch4 – F26,F29,105,F31,F35,123

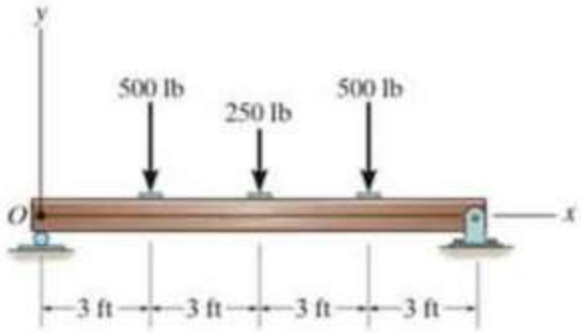
Ch4 – F37,F40,146,150

F4–26. Replace the loading system by an equivalent resultant force and couple moment acting at point *A*.



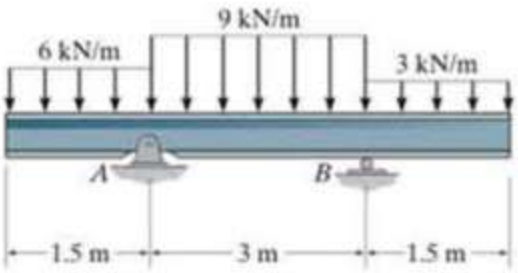
Fr = 108 N, θ = 68.2° M = 470 N-m (clockwise)

F4–31. Replace the loading system by an equivalent resultant force and specify where the resultant's line of action intersects the beam measured from O.



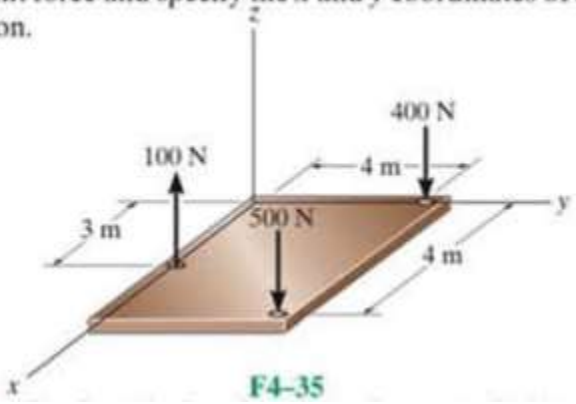
Fr = 1250 lb, xr = 6 ft

F4–37. Determine the resultant force and specify where it acts on the beam measured from *A*.



Fr = 40.5 kN, xr = 1.25 to right of support A

F4–35. Replace the loading shown by an equivalent single resultant force and specify the x and y coordinates of its line of action.



F4–35

Fr = 800, x = 2.125, y = 4.5