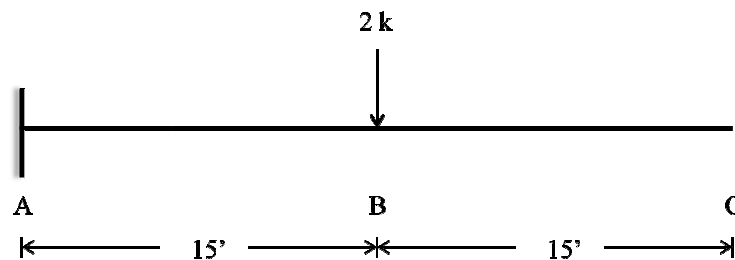## Homework #5

Note: Show all work. If you're having trouble predicting the deflected shape, draw the moment diagram to provide useful information about curvature and points of inflection.

Problem 1

a) Use the moment-area method to determine θ_B, θ_C, y_B, y_C (in terms of EI)

b) Assuming $E = 29{,}000$ ksi, what value of I will provide a deflection of 3.5 in. at point C?

Problem 2

Use the moment-area method to determine θ_A, θ_C, y_C (in radians and inches)

$E = 29{,}000$ ksi, $I = 100$ in.^{4}
$(EI)_{AB} = EI$
$(EI)_{BC} = 2EI$

Hint: Leave values in terms of EI until the final values need to be calculated