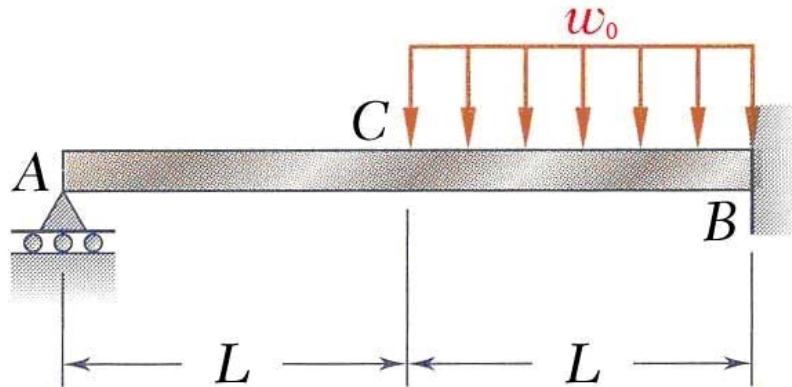


MEEG 3013 Quiz #10

A beam with constant flexural rigidity EI is supported and loaded as shown. Using **conjugate beam method**, determine for this beam (a) the reaction A_y at A, (b) the slope θ_A at A, (c) the slope θ_C at C, (d) the deflection y_C at C.



Drawing of conjugate beam ②

$$A_y = \frac{7w_0L}{64} \uparrow \quad ②$$

$$\theta_A = -\frac{5w_0L^3}{96EI} \quad ②$$

$$\theta_C = \frac{w_0L^3}{384EI} \quad ②$$

$$y_C = -\frac{13w_0L^4}{384EI} \quad ②$$