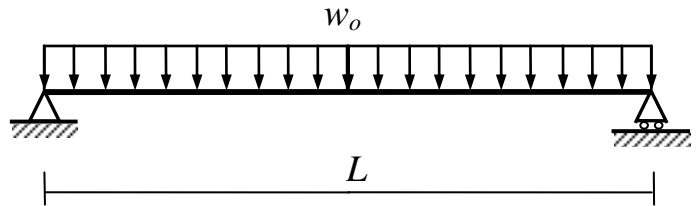


- Maximum grade is **20 Marks**

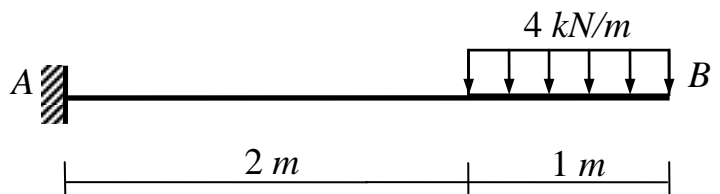
Question (1): (7 Marks)

Using the **double integration method**, determine the maximum deflection for the shown simply supported beam carrying a uniformly distributed load w_o



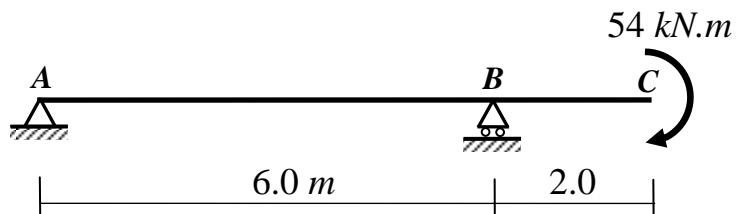
Question (2): (7 Marks)

Using the **moment-area method**, calculate the maximum deflection for the cantilever loaded as shown if the cross section is 50 mm wide by 150 mm high and $E = 69 \text{ GPa}$.



Question (3): (7 Marks)

For the shown beam, using the **conjugate beam method**, determine the slope and deflection at the right end C. $EI = 0.45 \times 10^6 \text{ N.m}^2$



Good luck!

Dr. M. Abdel-Kader