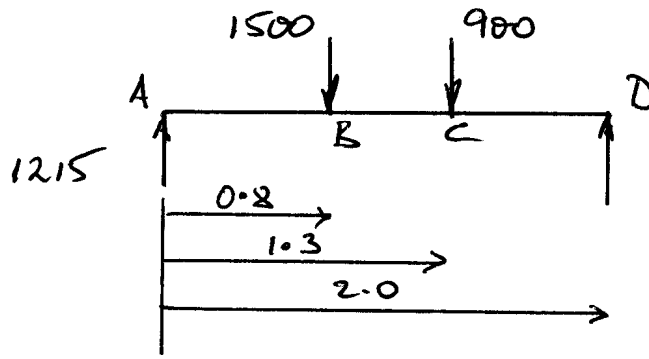


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Recalling (from 2)

$$EI \frac{dy}{dx} = 1215 \frac{x^2}{2} - 750[x-0.8]^2 - 450[x-1.3]^2 - 568.3$$

and

$$EI y = 1215 \frac{x^3}{6} - 250[x-0.8]^3 - 150[x-1.3]^3 - 568.3x$$

Now when deflection is maximum, slope is zero

Assumption (i) y_{\max} occurs in range BC

$$\text{i.e. } 0.8 < x < 1.3$$

Slope expression in this region is

$$EI \frac{dy}{dx} = 1215 \frac{x^2}{2} - 750(x-0.8)^2 - 568.3$$

Equating to zero

$$0 = 607.5x^2 - 750x^2 + 1200x - 480 - 568.3$$

$$0 = -142.5x^2 + 1200x - 1048.3$$

$$142.5x^2 - 1200x + 1048.3 = 0$$