

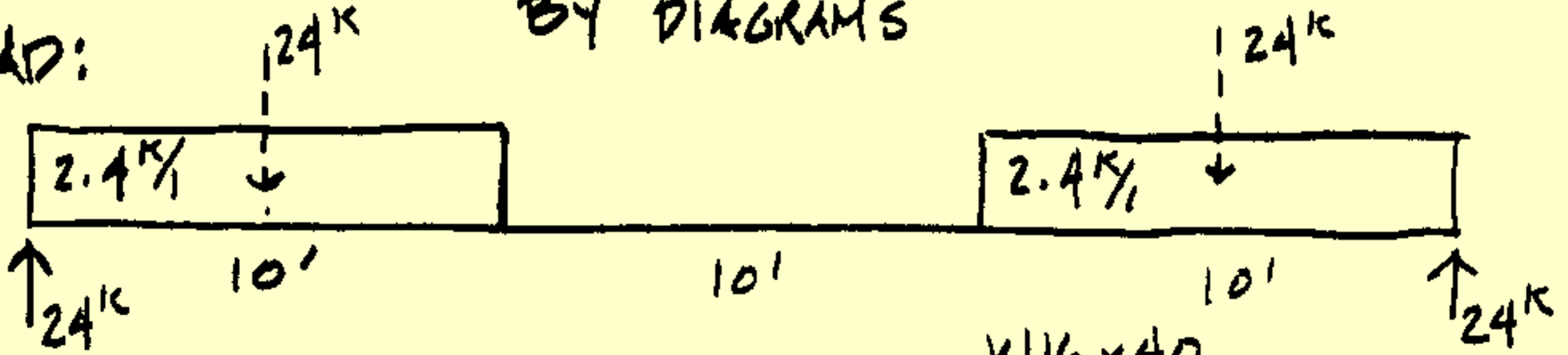
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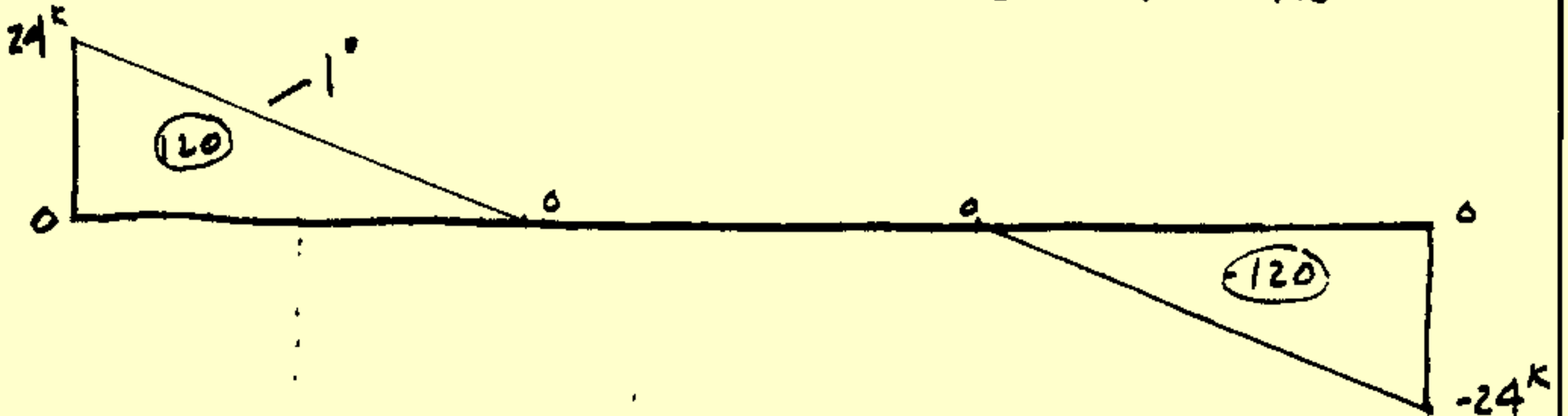
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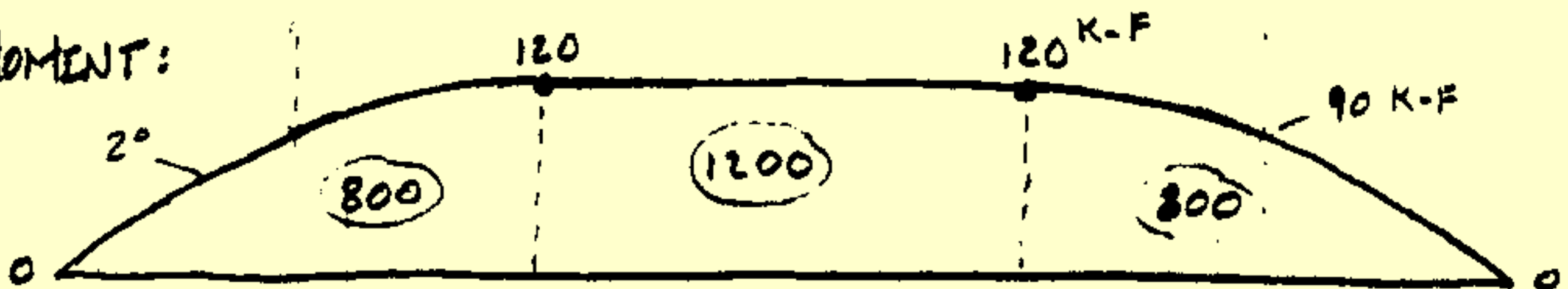


W16x40
I = 518 in⁴
E = 29000 ksi

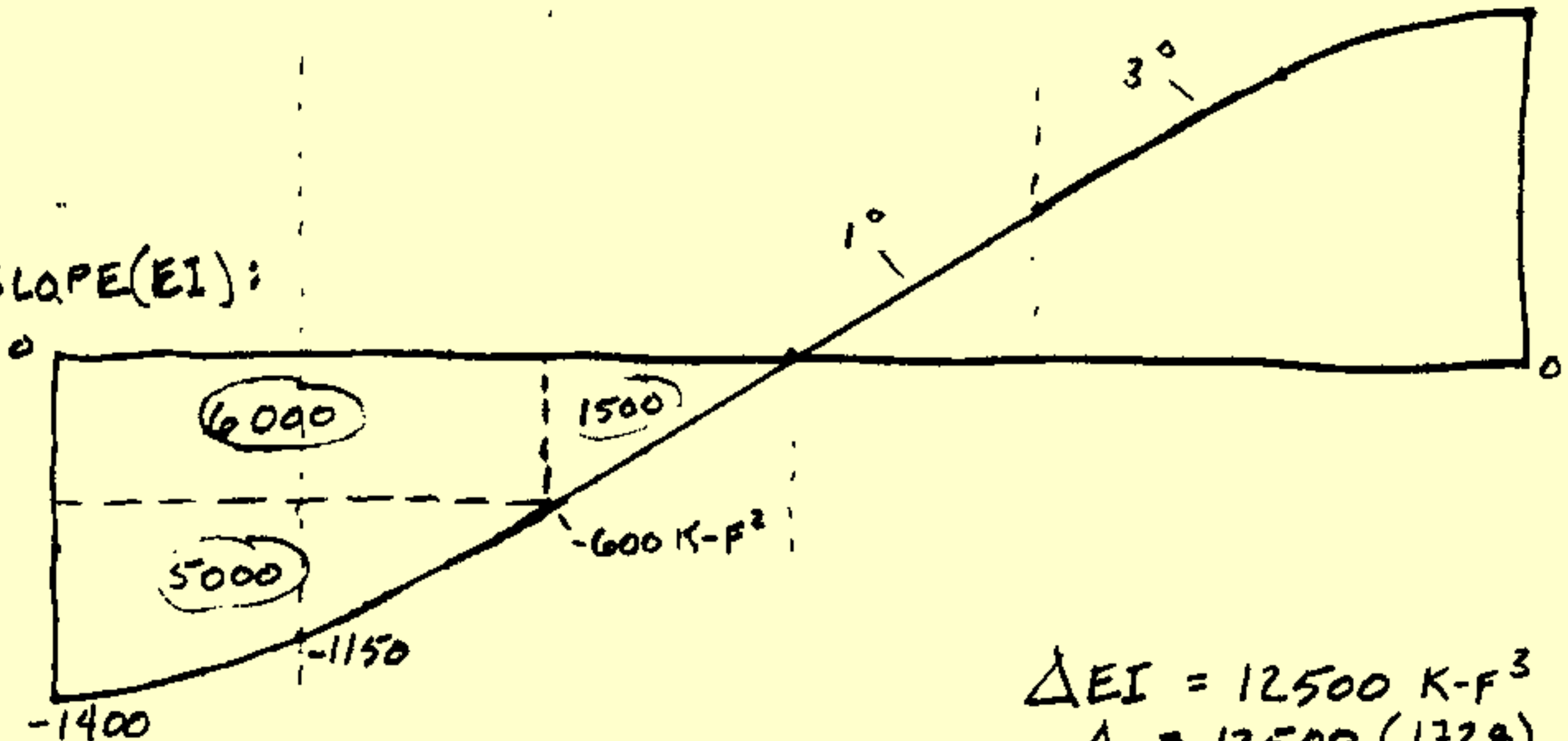
SHEAR:



MOMENT:



SLOPE (EI):

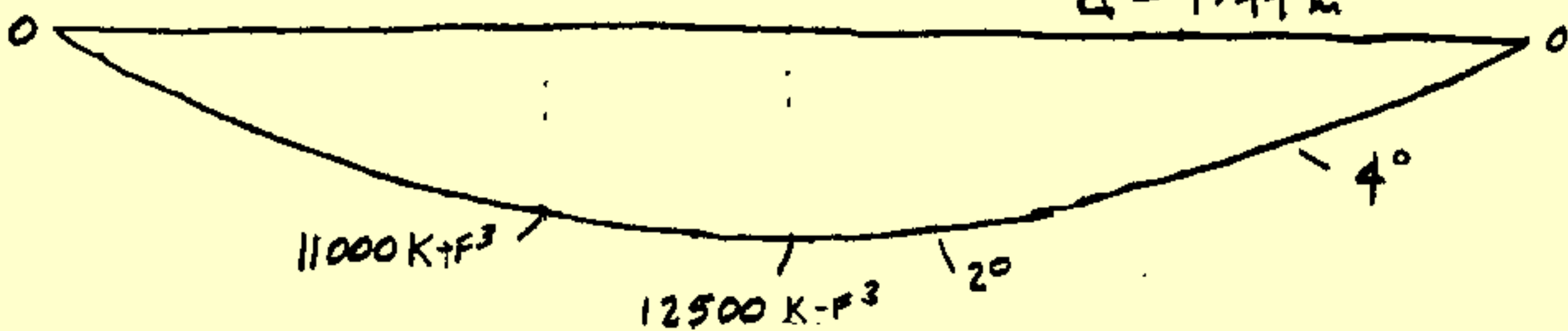


$$\Delta EI = 12500 \text{ K-F}^3$$

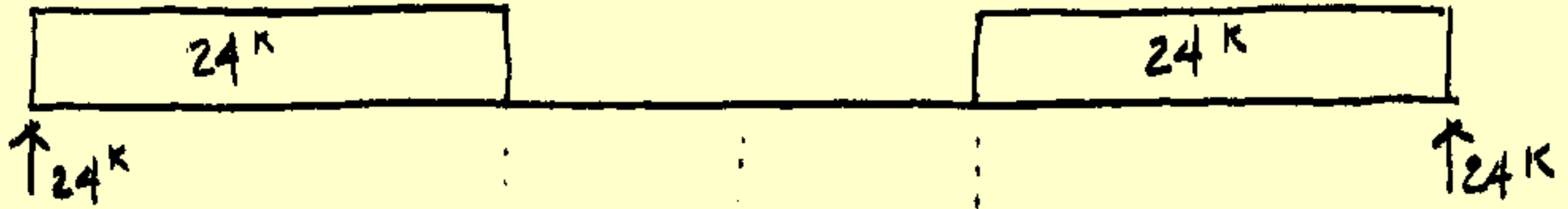
$$\Delta = \frac{12500 (1728)}{29000 (518)}$$

$$\Delta = 1.44 \text{ in}$$

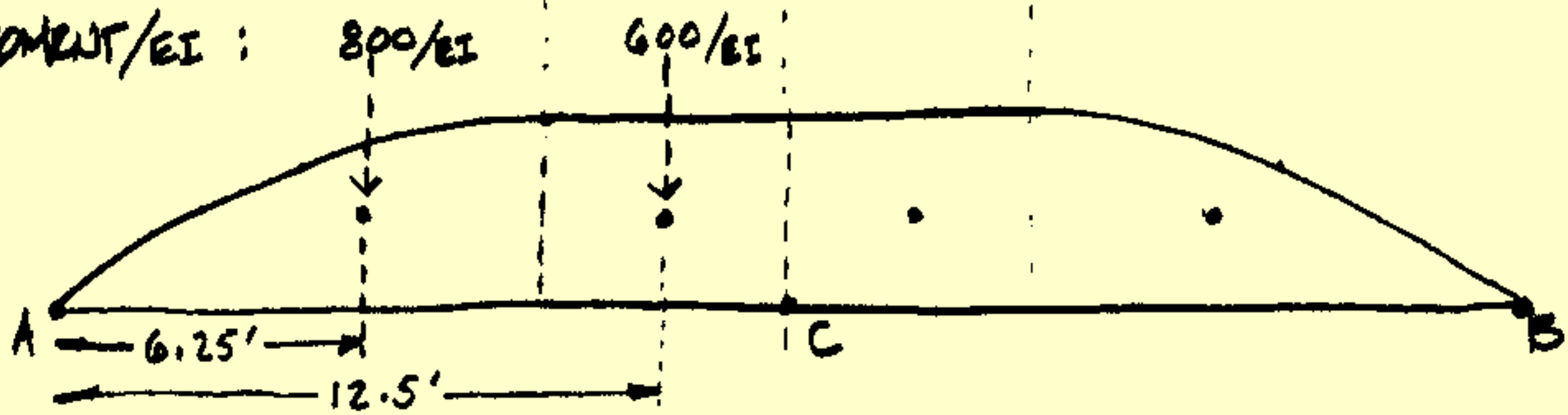
DEFLECTION (EI):



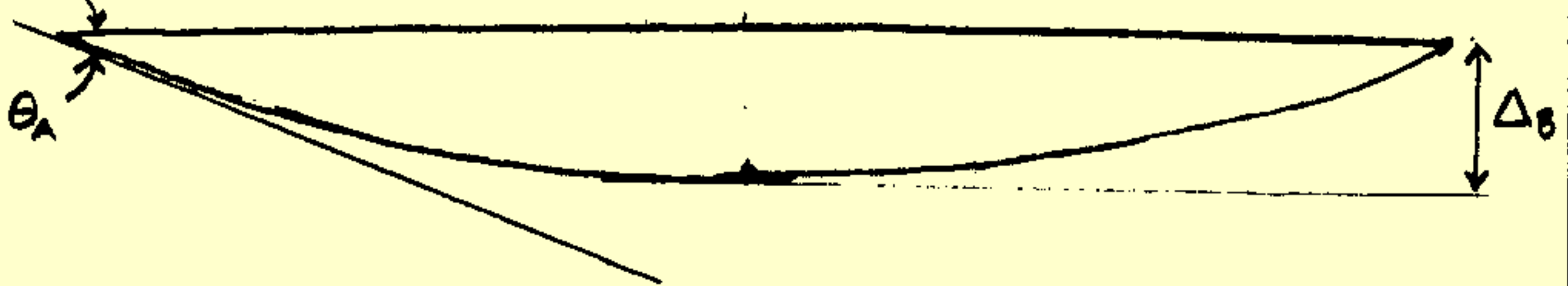
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MOMENT/EI:



DEFLECTION:



$$\theta_A = \frac{800}{EI} + \frac{600}{EI} = 1400 \frac{\text{K}\cdot\text{F}^2}{EI}$$

$$\Delta_B = \frac{800}{EI}(6.25) + \frac{600}{EI}(12.5) = 12500 \frac{\text{K}\cdot\text{F}^3}{EI}$$

$$= \frac{12500 (12^3)}{29000 (518)} = 1.44 \text{ in.}$$