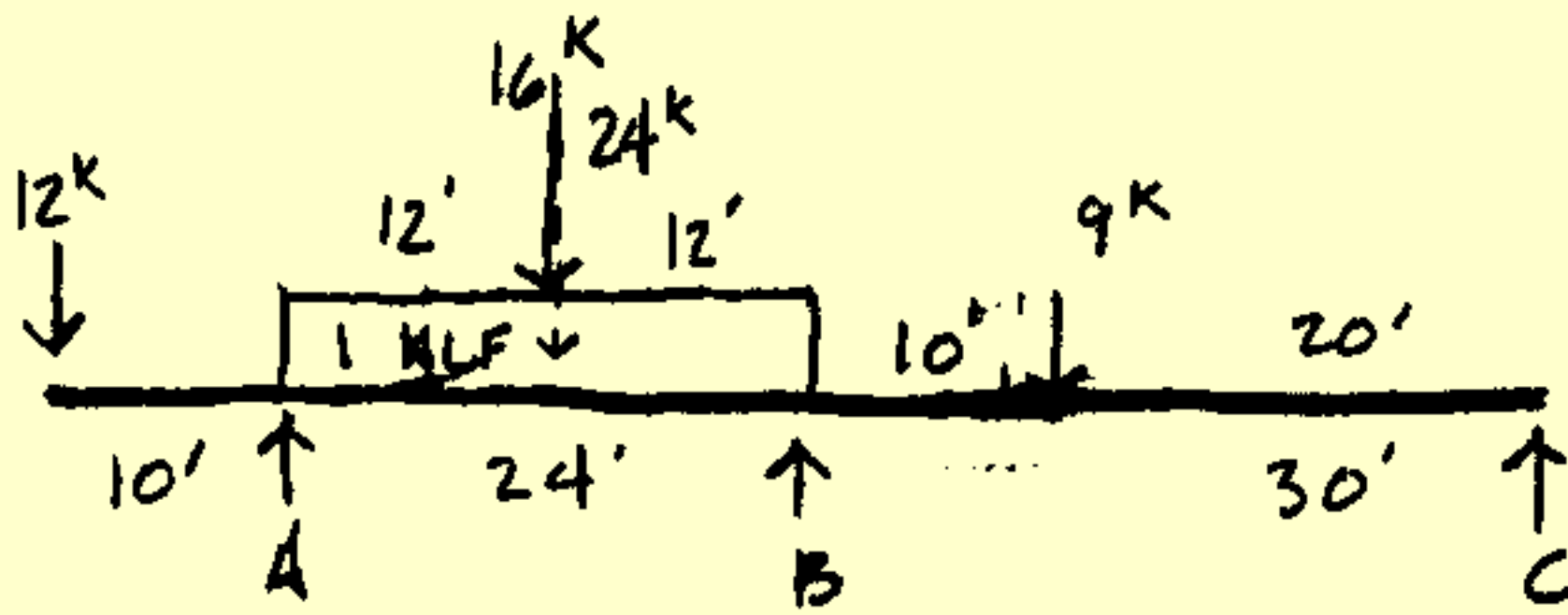


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3 MOMENT EQUATION:

$$M_A L_1 + 2M_B(L_1 + L_2) + M_C L_2 = 6 [(EI\theta_1 + EI\theta_2)]$$

$$M_A = 12^k(10') = 120^k'$$

$$M_B = ? \text{ (FIND)}$$

$$M_C = 0 \text{ (UNRESTRAINED END)}$$

$$L_1 = 24'$$

$$L_2 = 30'$$

$$L_1 + L_2 = 54'$$

$$EI\theta_1 = \frac{PL_1^2}{16} + \frac{WL_1^2}{24} = \frac{16(24)^2}{16} + \frac{24(24)^2}{24} = 1152$$

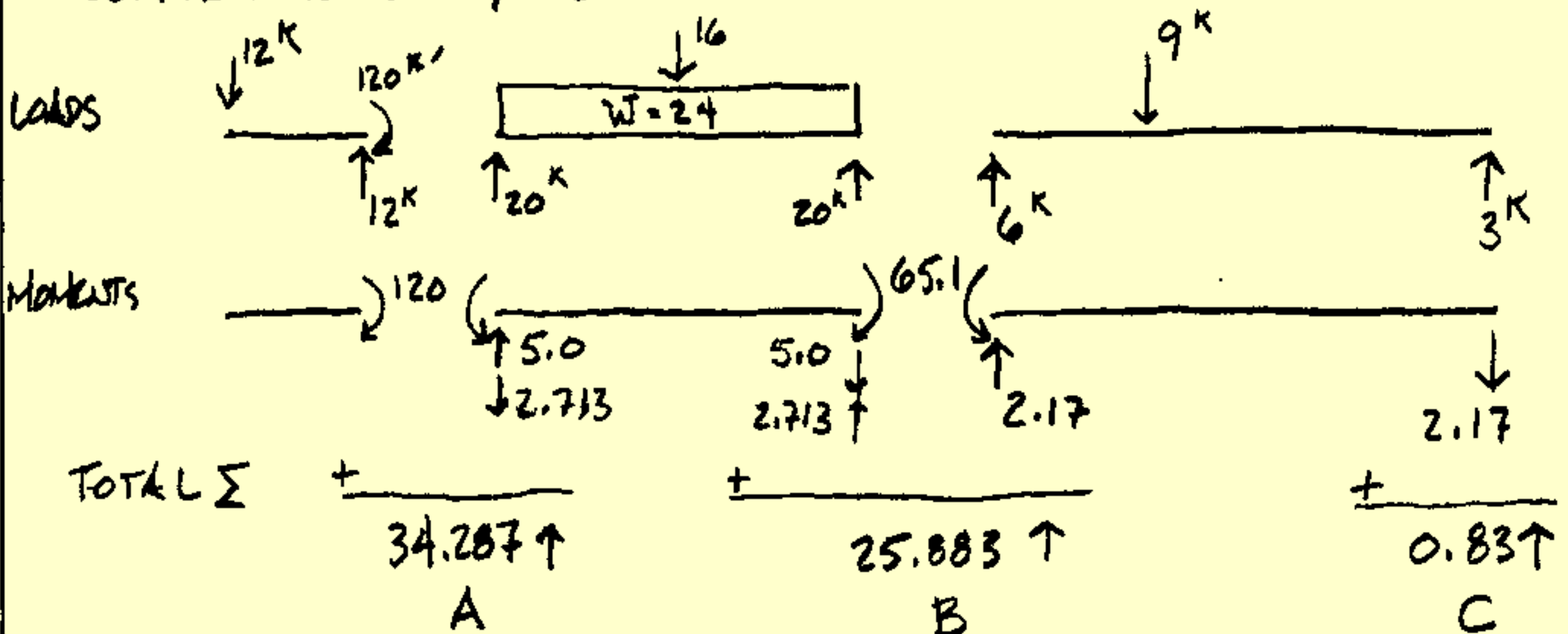
$$EI\theta_2 = \frac{5PL_2^2}{81} = \frac{5(9)(30)^2}{81} = 500$$

$$(EI\theta_1 + EI\theta_2) = 1652$$

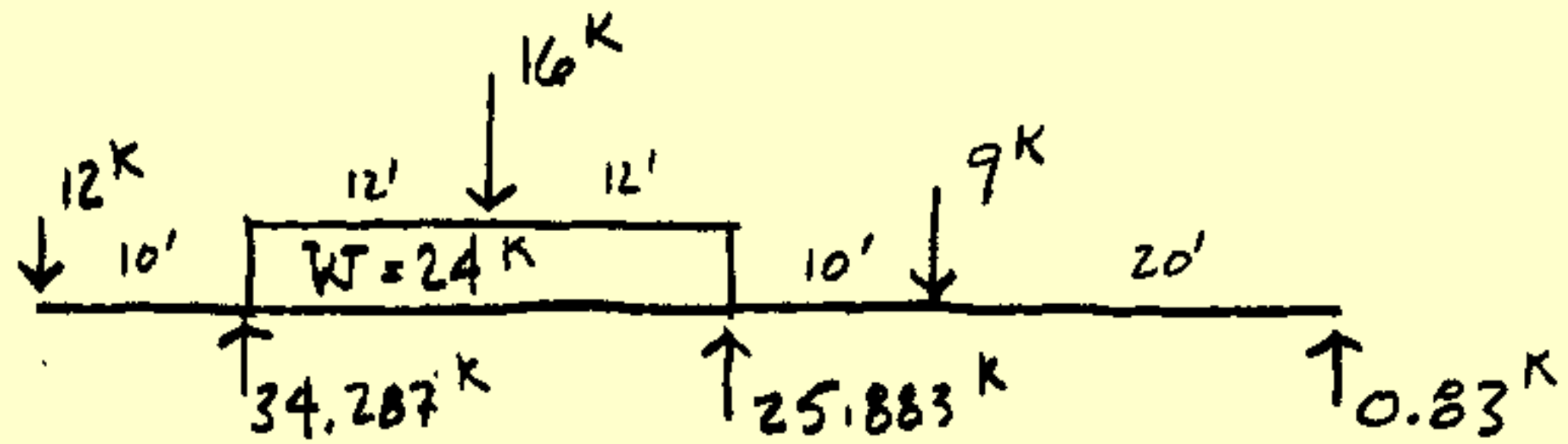
$$120(24) + 2M_B(54) + 0(30) = 6 [1652]$$

$$M_B = 65.11 \text{ K-FT}$$

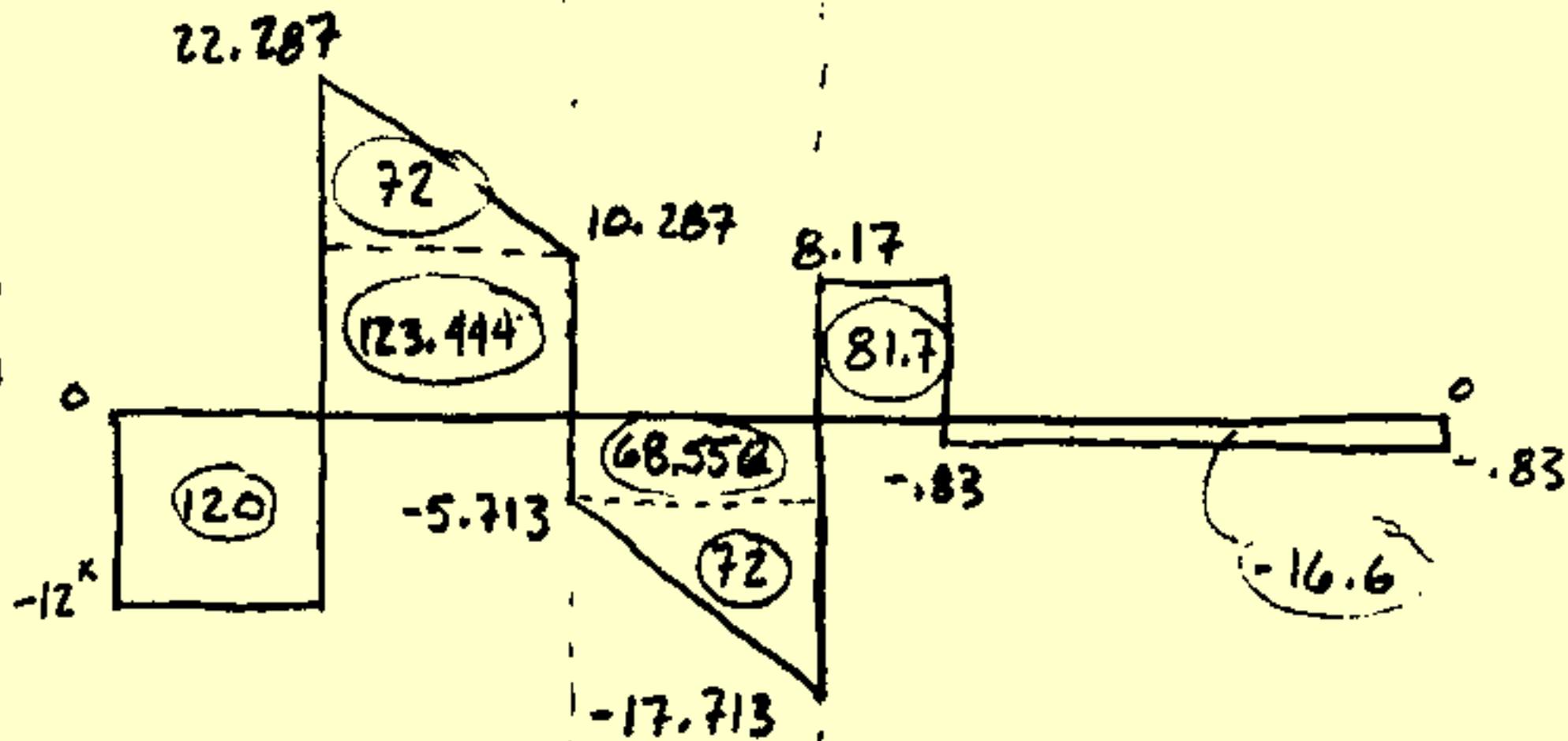
SUM REACTIONS BY SUPERPOSITION:



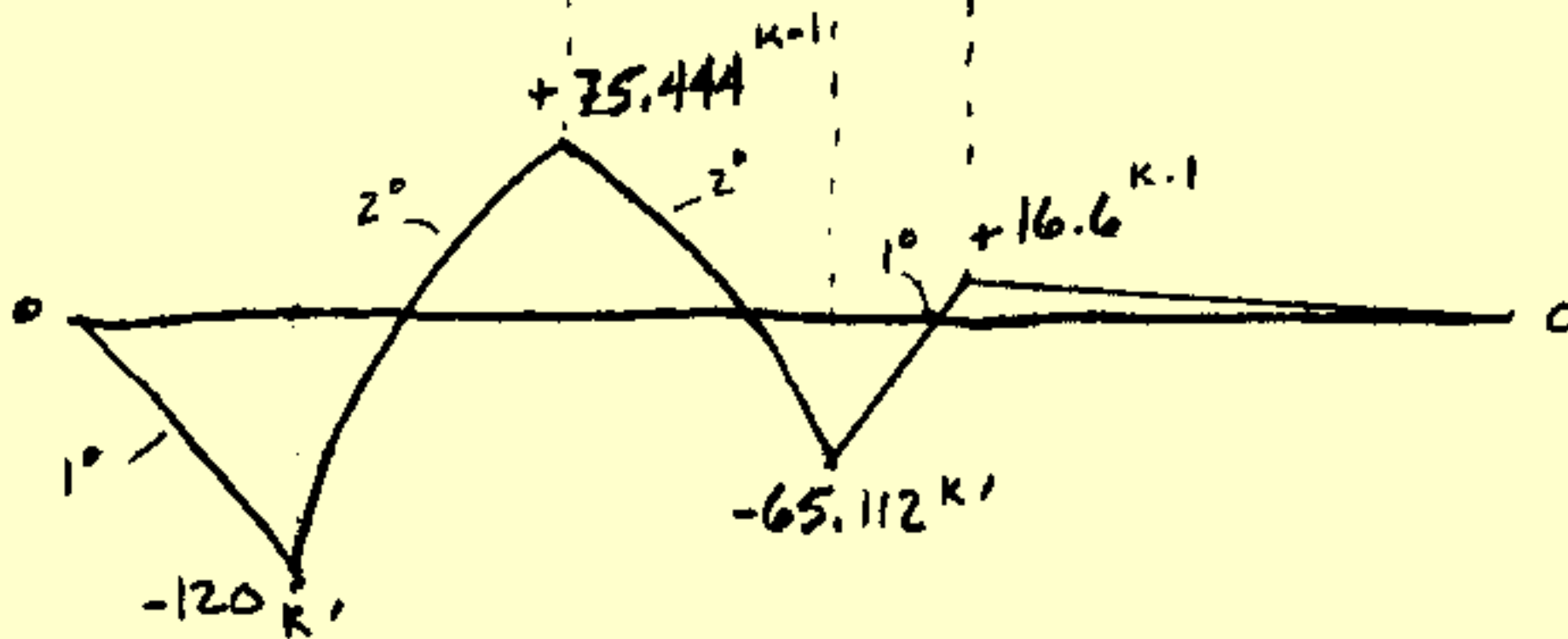
LOAD DIAGRAM



SHEAR DIAGRAM



MOMENT DIAGRAM



22-141 50 SHEETS
22-142 100 SHEETS
22-144 200 SHEETS

