

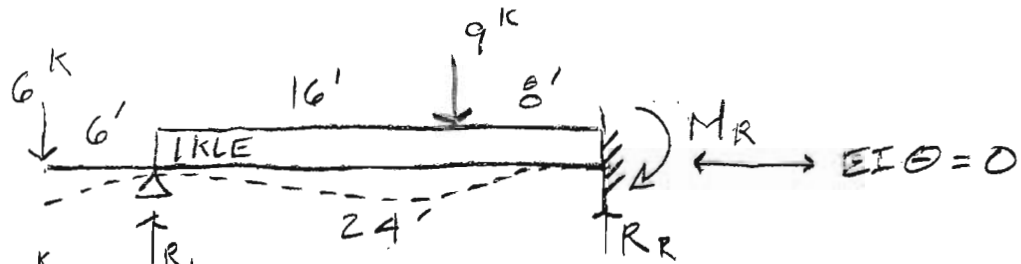
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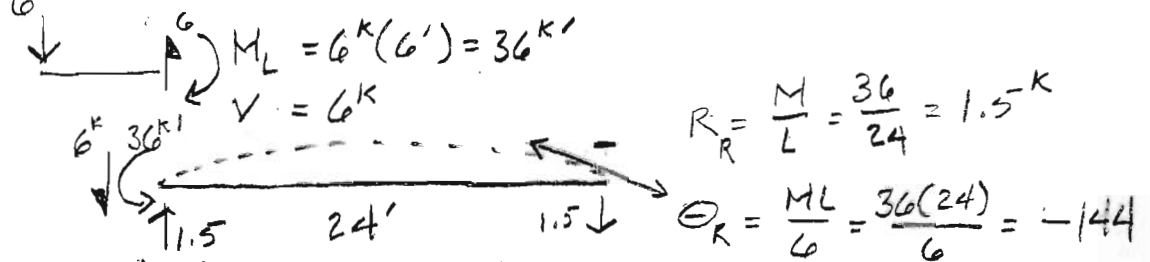
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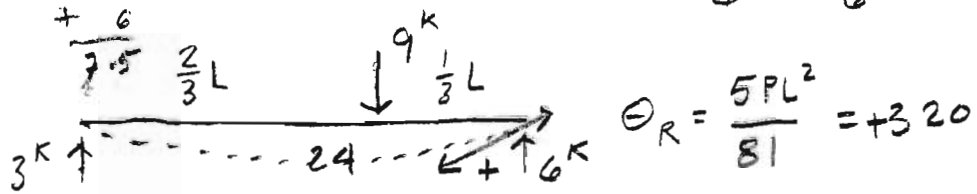
16-3 (H)



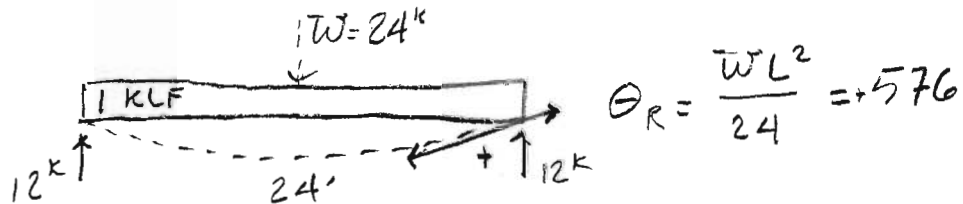
FBD I



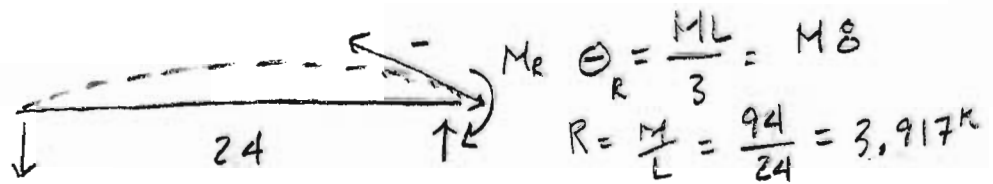
FBD II



FBD III



FBD IV



$$\Theta_R = 0 = -144 + 320 + 576 - M\theta$$

$$M\theta = 752, \quad M = 94 \text{ k}\cdot\text{ft}$$

$$R_R = -1.5 + 6 + 12 + 3.917 = 20.42 \text{ k}$$

$$R_L = (1.5 + 6) + 3 + 12 - 3.917 = 18.58 \text{ k}$$

$$R_{\text{TOTAL}} = 39.00 \text{ k}$$

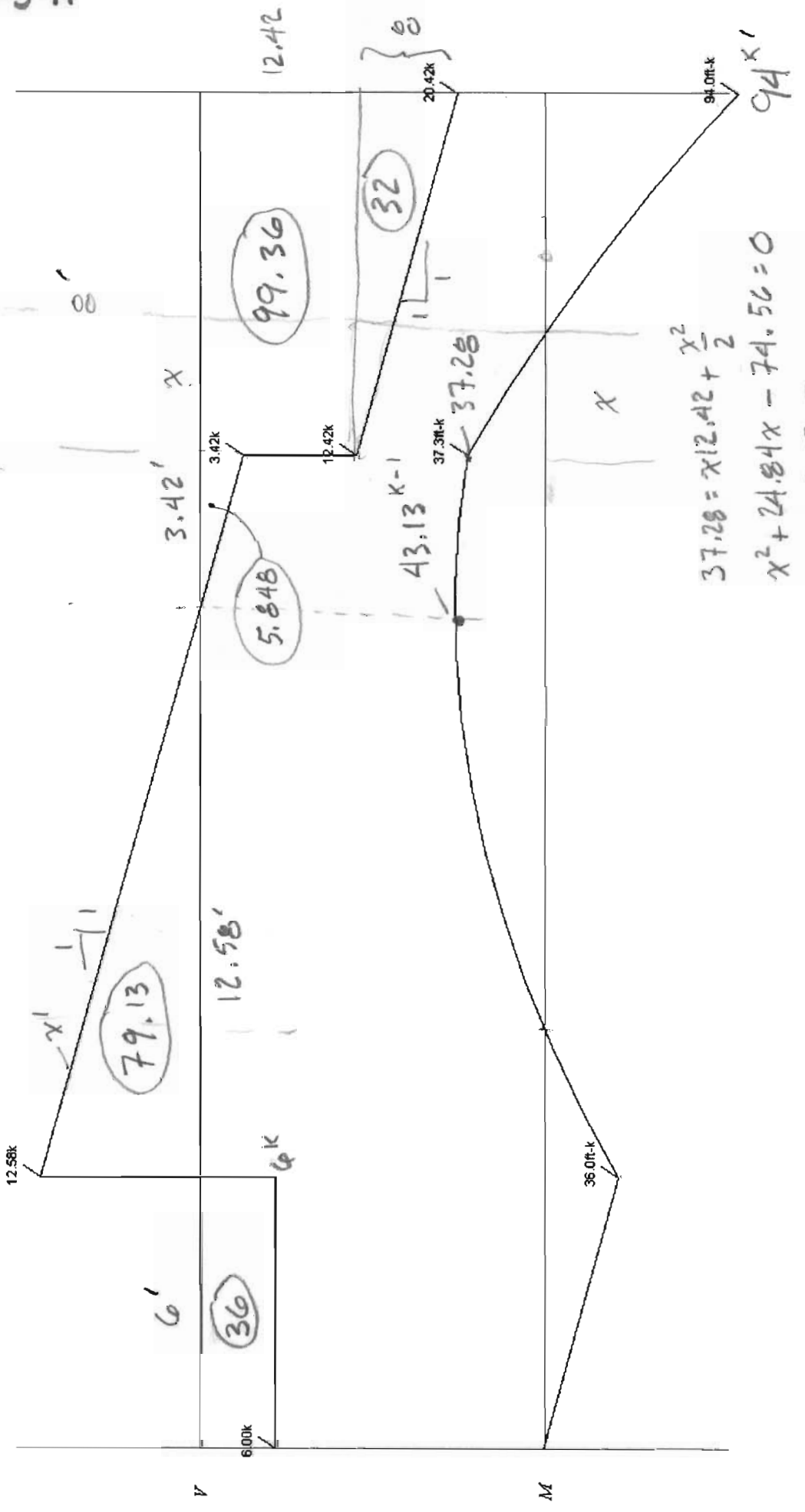
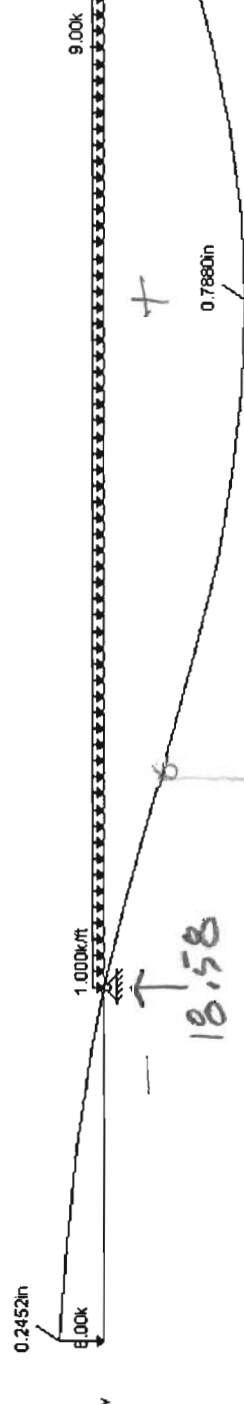
APPLIED LOAD

$$-6 - 9 - 24 = -39 \leftarrow$$

BALANCED ✓

16-3(H)

16-3 H
 94 K-1
 20.42 K



$$37.28 = x \cdot 12.42 + \frac{x^2}{2}$$

$$x^2 + 24.84x - 74.56 = 0$$

$$x = 2.707$$