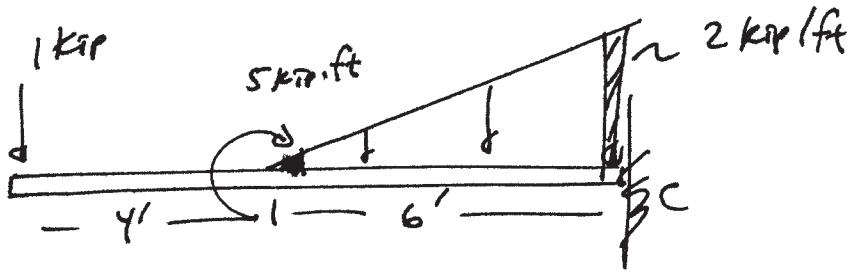


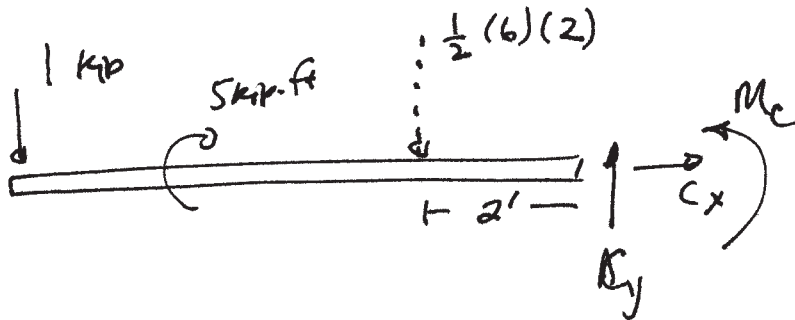
EXAMPLE:

S.5-17

①



① Find statics RNS

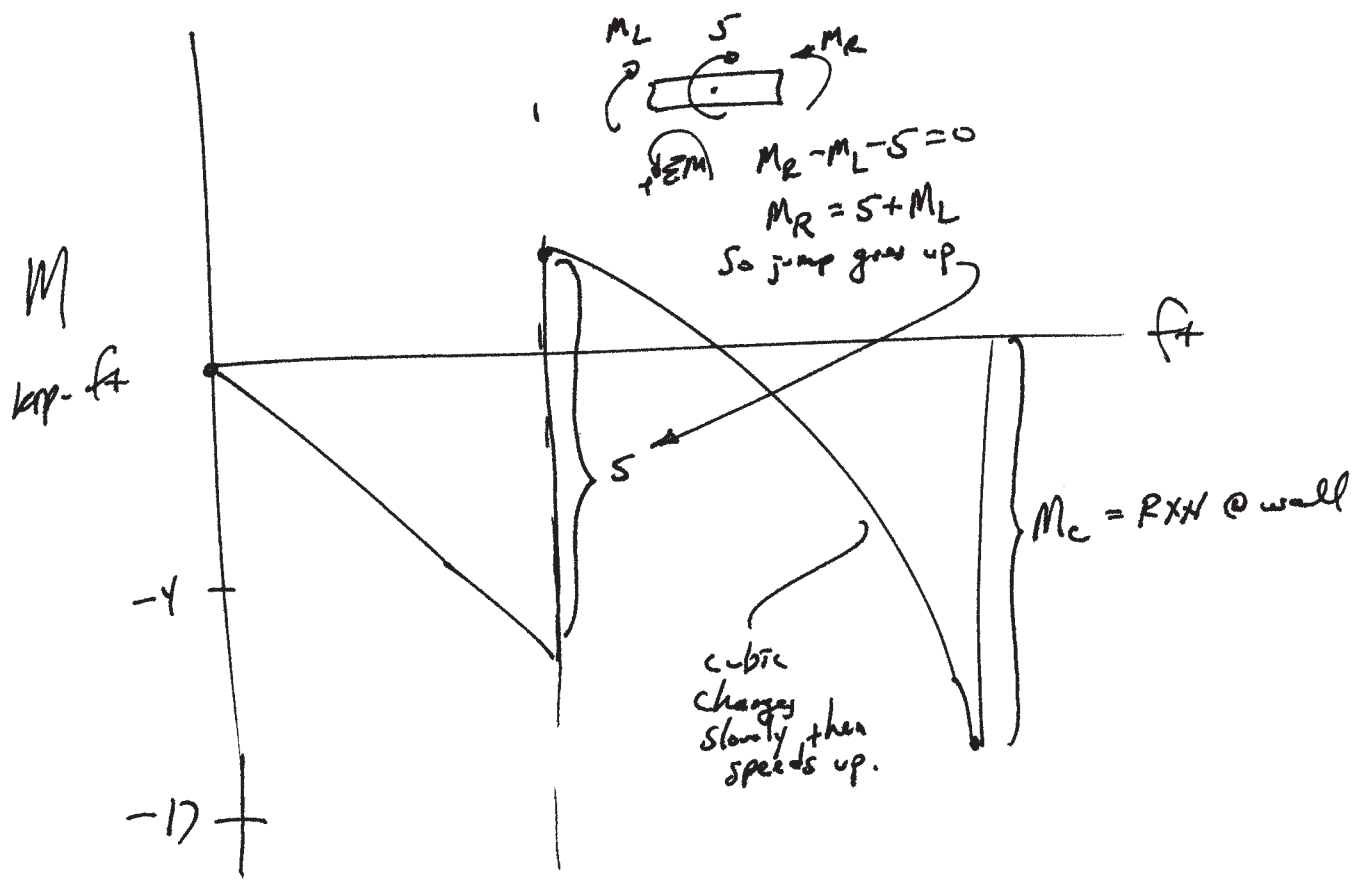
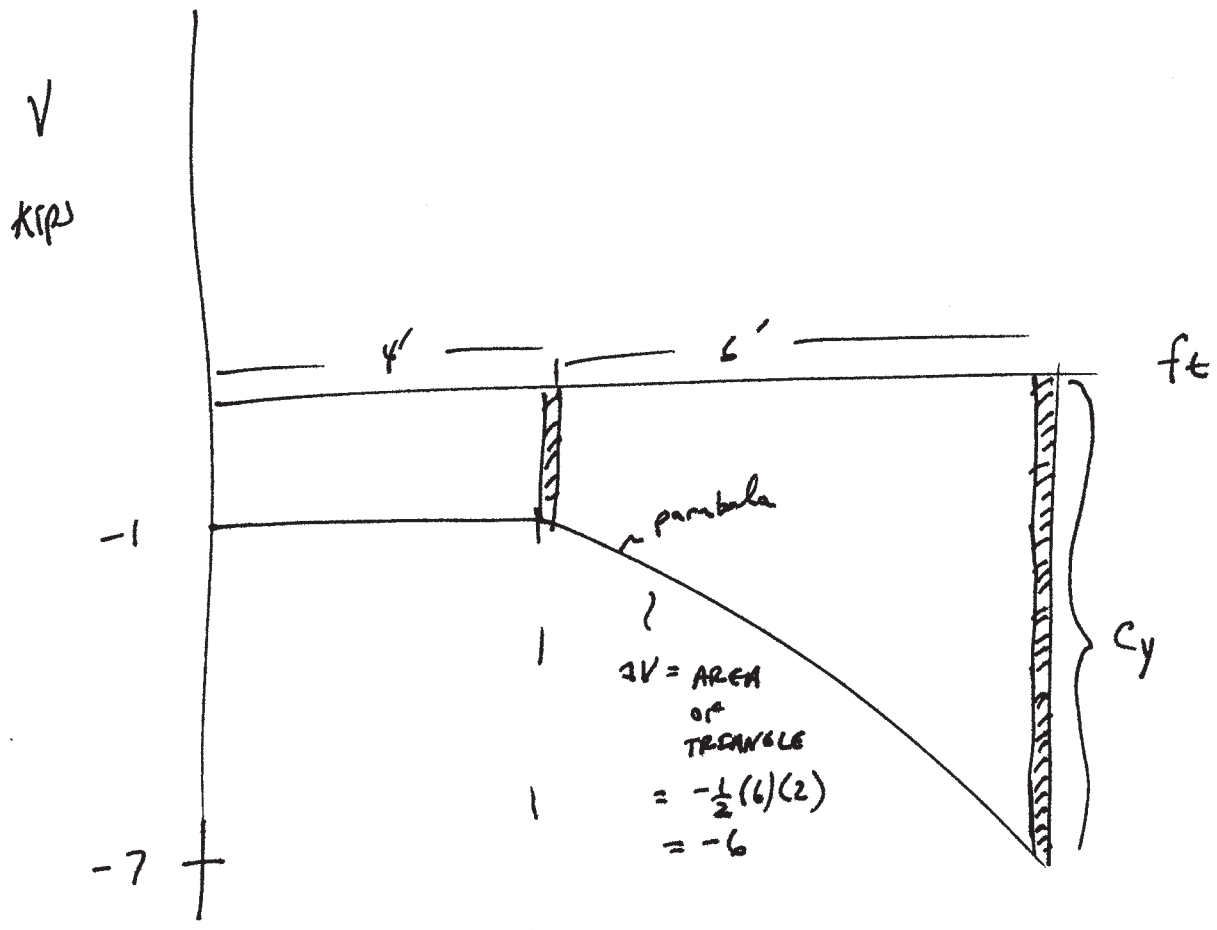


$$\sum F_x \rightarrow : C_x = 0$$

$$\sum F_y \uparrow : -1 - \frac{1}{2}(6)(2) + C_y = 0 \Rightarrow C_y = 7 \text{ kips}$$

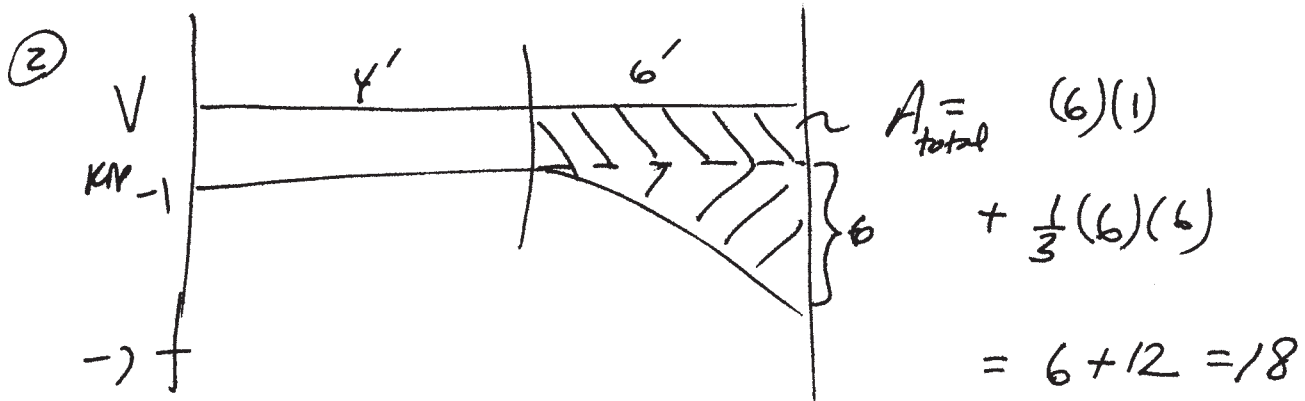
$$\sum M_C \curvearrowright : M_C + (1)(10) - 5 + \frac{1}{2}(6)(2)(2) = 0$$

$$M_C = -17 \text{ kip}\cdot\text{ft}$$

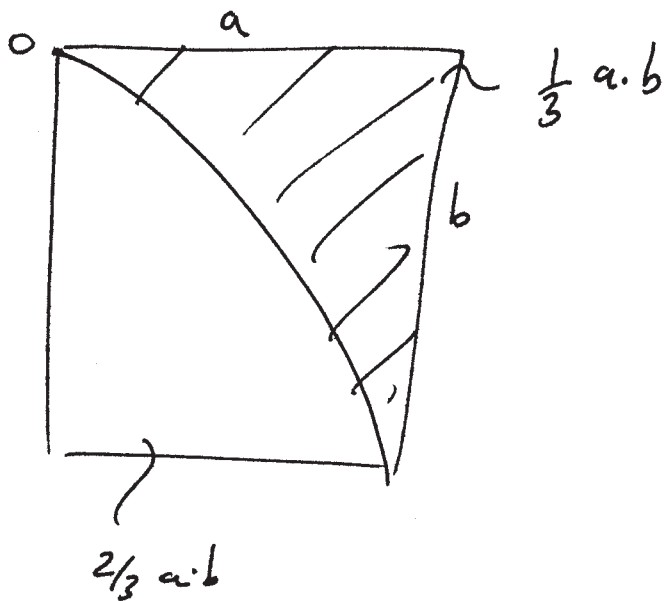


How to find the ΔM when V is a parabola? ③

① If your statics is correct, M should be $-17 \text{ kip}\cdot\text{ft}$.



Area of a parabolic spandrel:



Note: the portion of the parabola must include the origin of the parabola.

③ use a Free Body Cut to determine M at the end of the interval