Example: S.5-17

1 kip 5 kip/ft 2 kip/ft

1 5

1 kip 5 kip/ft

\[ \frac{1}{2} (6)(2) \]

\[ M_c \]

\[ C_x \]

\[ C_y \]

\[ -1 - \frac{1}{2} (6)(2) + C_y = 0 \]

\[ C_y = 7 \text{ kips} \]

\[ M_c + (1)(6) - 5 + \frac{1}{2} (6)(2)(2) = 0 \]

\[ M_c = -17 \text{ kip-ft} \]
\[ V \]

\[ \text{area of triangle} = -\frac{1}{2} (c)(2) = -c \]

\[ M_L - M_L - S = 0 \]

\[ M_R = S + M_L \]

So jump goes up.

\[ M_c = Rxy \text{ @ wall} \]

Cubic change slowly then speeds up.
How to find the AM when V is a parabola?

1. If your status is correct, M should be \(-17 \text{ kips ft.}\).

\[ A_{\text{total}} = (6)(1) + \frac{1}{3}(6)(6) = 6 + 12 = 18 \]

Area of a parabolic spandrel:

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

2. Use a Free Body Cut to determine M at the end of the interval.