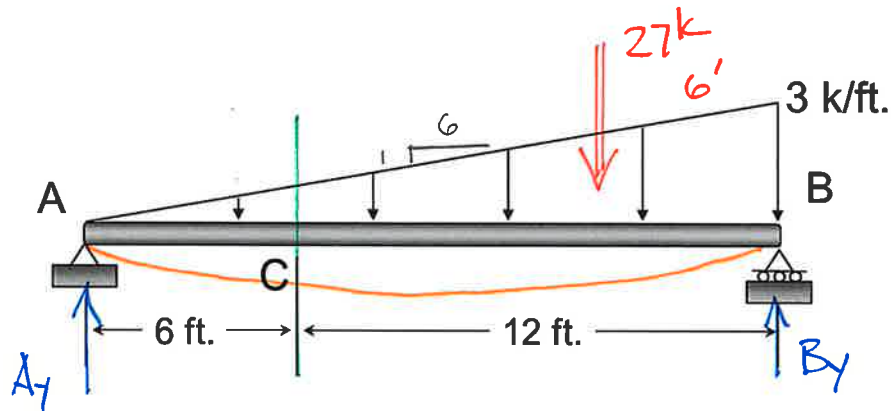
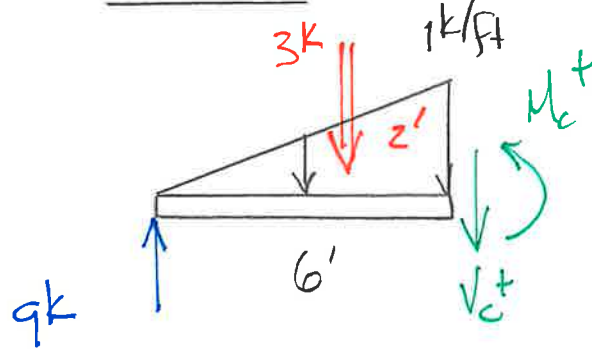


Example 4a-3 - Determine the internal shear and moment at a section passing through point C.



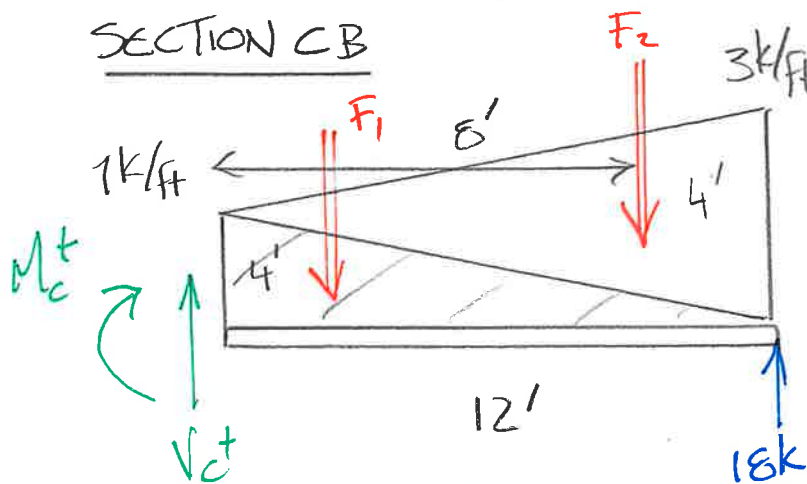
$$\begin{aligned} \sum M_B = 0 &= 27^k(6') - A_y(18') & A_y &= 9^k \\ \sum F_y = 0 &= A_y + B_y - 27^k & B_y &= 18^k \end{aligned}$$

SECTION AC



$$\begin{aligned} \sum M_{cut} = 0 &= M_c + 3^k(z') - 9^k(6') & M_c &= 48^k\text{ft} \\ \sum F_y = 0 &= -V_c - 3^k + 9^k & V_c &= 6^k \end{aligned}$$

SECTION CB



$$\begin{aligned} \sum M_{cut} = 0 &= -M_c - 6^k(4') - 18^k(8') + 18^k(12') & M_c &= 48^k\text{ft} \\ \sum F_y = 0 &= V_c - 6^k - 18^k + 18^k & V_c &= 6^k \end{aligned}$$

$$F_1 = \frac{1}{2}(12')(1^k/\text{ft}) = 6^k$$

$$F_2 = \frac{1}{2}(12')(3^k/\text{ft}) = 18^k$$