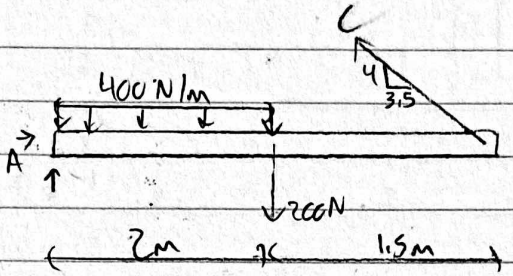
Solutions: 21-5-4.9-MN-03



$$\Sigma f_x = A_x - \frac{3.5}{\sqrt{4^2+3.5^2}}(C)$$

$$\Sigma M_A = -(400\,N/m)(2m)(1m) - 200N(2m) + C\left(\frac{4}{\sqrt{3.5^2+4^2}}\right)(3.5m)$$

$$C = \frac{(400\,N/m)(2m)(1m) + 200N(2m)}{\left(\frac{4}{\sqrt{3.5^2+4^2}}\right)(3.5m)} \rightarrow \boxed{C = 455.6\,N}$$

$$\Sigma f_x = 0 = A_x - \frac{3.5}{\sqrt{4^2+3.5^2}}(455.6N) \rightarrow \boxed{A_x = 300N}$$

$$\Sigma f_y = 0 = (-400\,N/m)(2m) - (200N) + A_y + \frac{4}{\sqrt{4^2+3.5^2}}(455.6)$$

$$A_y = 800N + 200N - \frac{4}{\sqrt{4^2+3.5^2}}(455.6N)$$

$$\boxed{A_y = 657\,N}$$