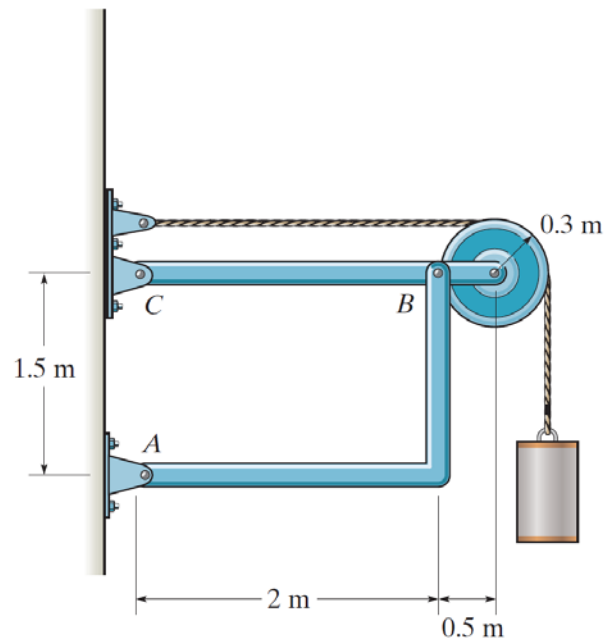
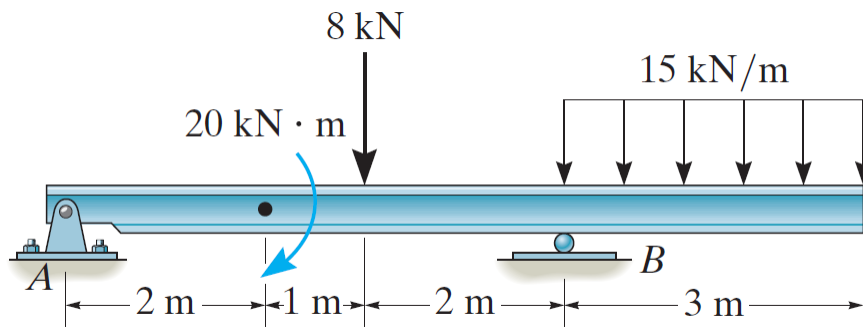


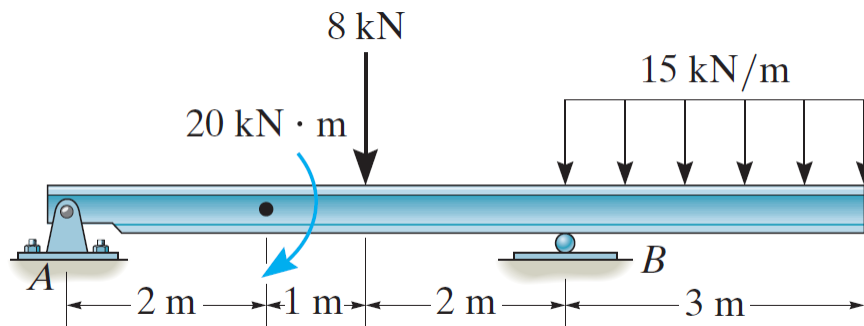
Determine the horizontal and vertical components of force at pins  $B$  and  $C$ . The suspended cylinder has a mass of 75 kg.



Draw the shear and moment diagrams for the beam.



Draw the shear and moment diagrams for the beam.



The coefficients of static and kinetic friction between the drum and brake bar are  $\mu_s = 0.4$  and  $\mu_k = 0.3$ , respectively. If  $M = 50 \text{ Nm}$  and  $P = 85 \text{ N}$  determine the horizontal and vertical components of reaction at the pin  $O$ . Neglect the weight and thickness of the brake. The drum has a mass of  $25 \text{ kg}$ .

