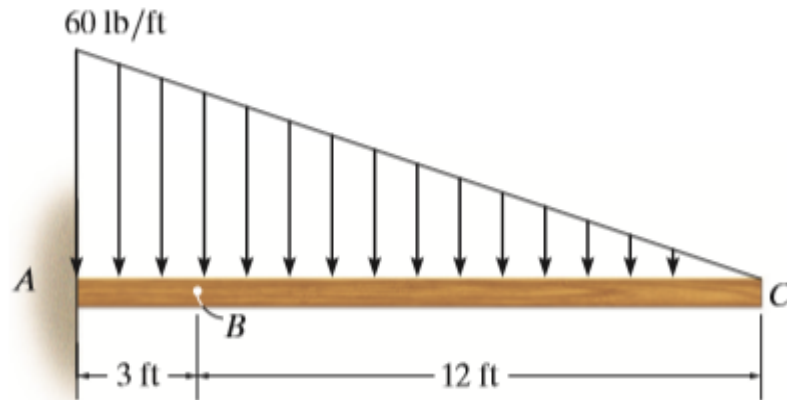


- **Homework1:** 1-5, 1-9, 1-17, 1-26  
\*State ALL your answers even if the answer is zero.

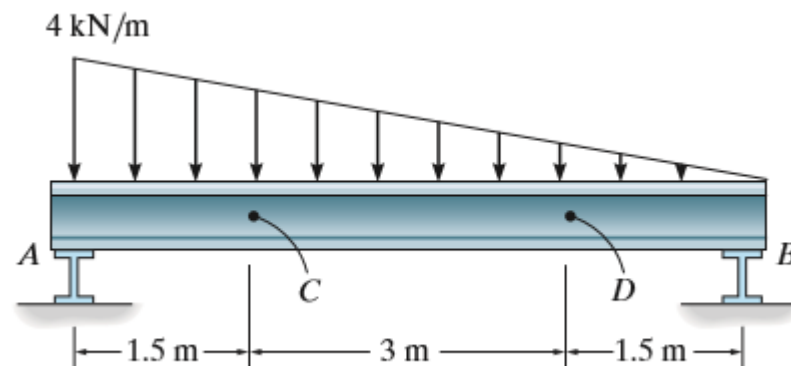
1-5.

Determine the resultant internal loadings acting on the cross section at point  $B$ .



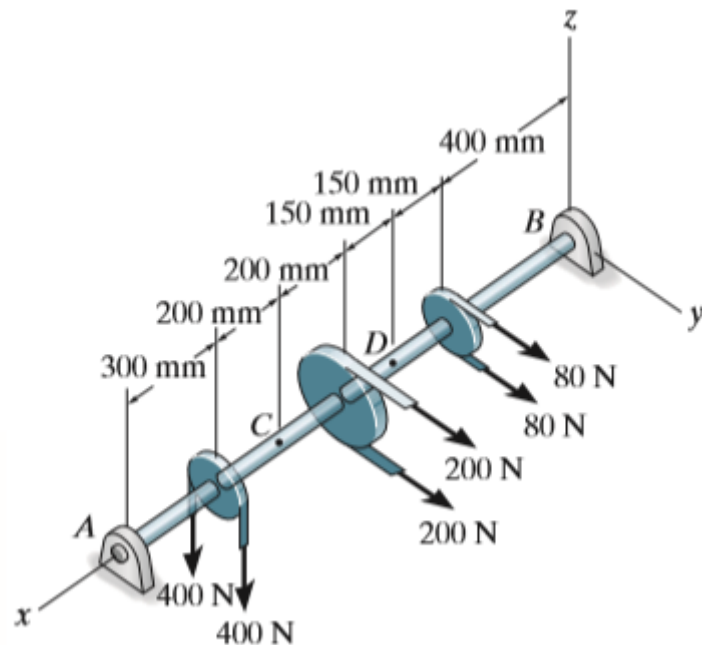
1-9.

The beam supports the distributed load shown. Determine the resultant internal loadings acting on the cross section at point  $D$ . Assume the reactions at the supports  $A$  and  $B$  are vertical.



**1-17.**

The shaft is supported at its ends by two bearings  $A$  and  $B$  and is subjected to the forces applied to the pulleys fixed to the shaft. Determine the resultant internal loadings acting on the cross section at point  $D$ . The 400-N forces act in the  $-z$  direction and the 200-N and 80-N forces act in the  $+y$  direction. The journal bearings at  $A$  and  $B$  exert only  $y$  and  $z$  components of force on the shaft.



**1-26.**

Determine the resultant internal loadings acting on the cross section of the frame at points  $F$  and  $G$ . The contact at  $E$  is smooth.

