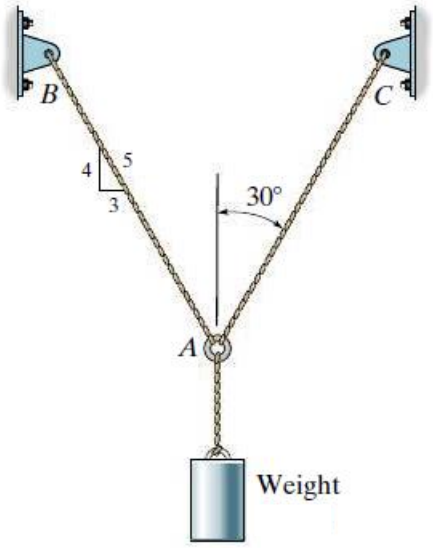
UNIVERSITY OF WOLLONGONG IN DUBAI

FACULTY OF ENGINEERING AND INFORMATION SCIENCES

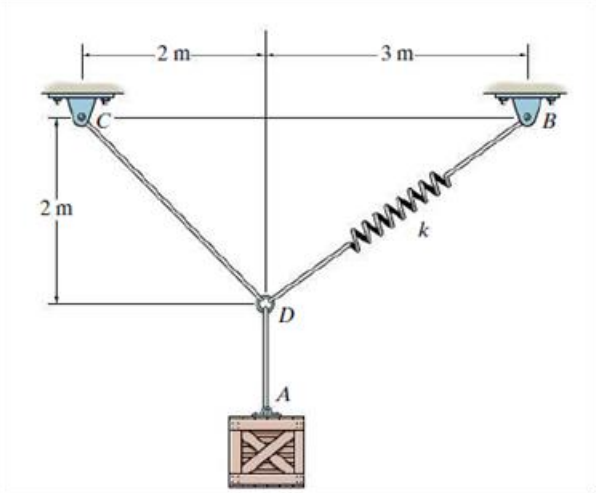
Name: _____ Student No._____

Q1. Draw a free body diagram and determine the magnitude if each force.

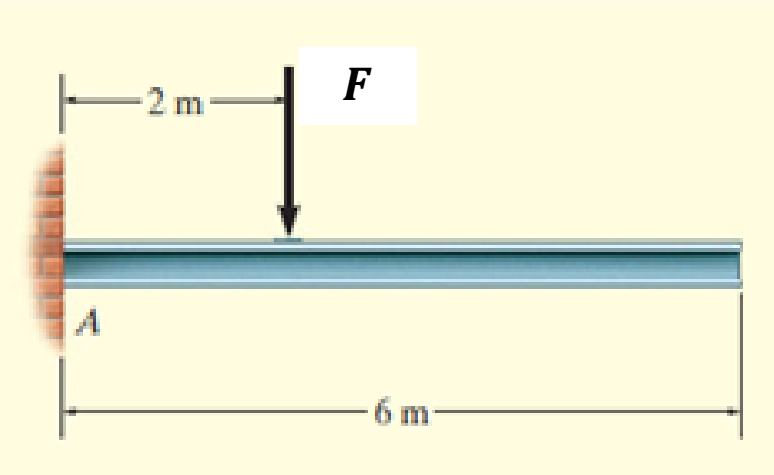



$Weight = 200\,N$

Q2. If the spring has an unstretched length of $2\ \mathrm{m}$, determine the stiffness of the spring to hold the $40\ \mathrm{kg}$ crate in the position shown.



Q3. The uniform beam shown in the figure has a mass of $100\ \mathrm{kg}$ and is fixed at support A. Calculate the reaction force(s) at A.




$F = 1200\ N$