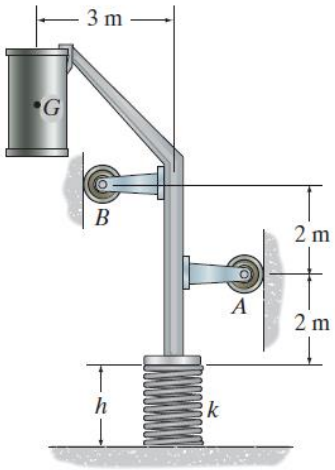
CME 250 – Statics
Exam #5 (10/25/2023)

StarID or TechID (no names) _____

Show your work (you will not receive any credit if all you have is a final answer, right or wrong).
Do one of the two problems shown below (the second problem is on the back).

1. The 120-kg container has a center of mass at G. The spring when not loaded has a height of 250 mm. The spring stiffness k = 300 kN/m. Determine the height h of the spring when loaded as shown and the reaction at roller A and at roller B.



2. Replace the loading on the frame by a single resultant force. Provide the magnitude and the angle of the force measured from the horizontal. Specify where its line of action intersects member CD, measured from end C.