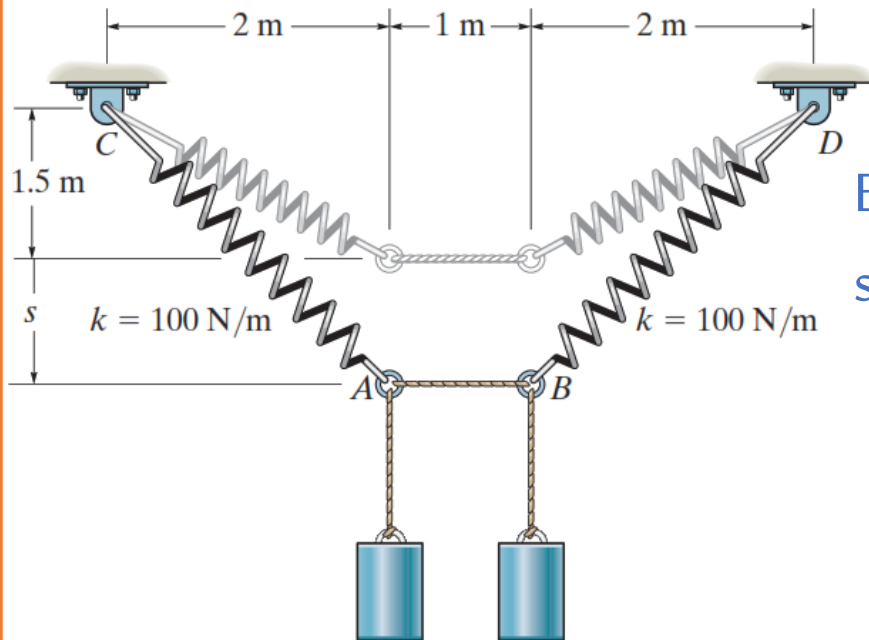
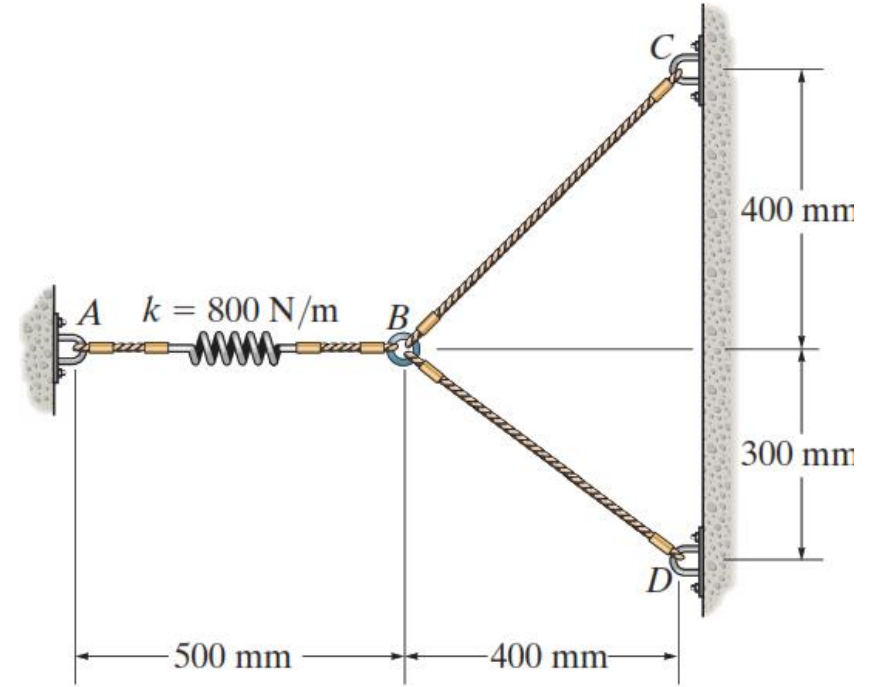


Ex. 1. The spring has a stiffness of $k = 800 \text{ N/m}$ and an unstretched length of 200 mm . Determine the force in cables BC and BD when the spring is held in the position shown.

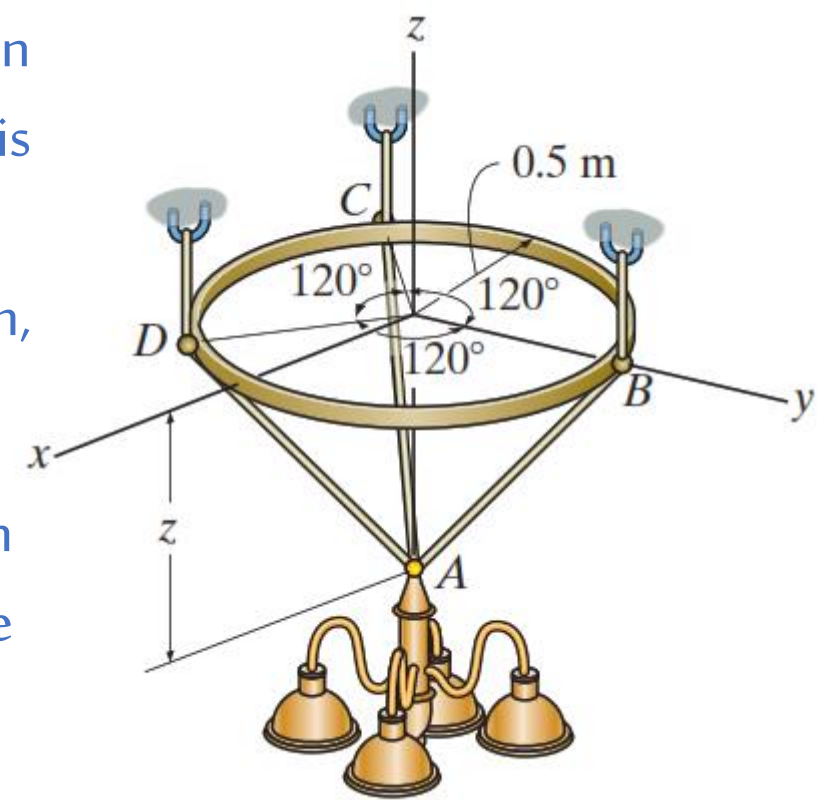


Ex. 2. Determine the mass of each of the two cylinders if they cause a sag of $s = 0.5 \text{ m}$ when suspended from the rings at A and B.

Example 3. The thin ring can be adjusted vertically between three equally long cables from which the 100-kg chandelier is suspended.

(1) If the ring remains in the horizontal plane and $z = 600$ mm, determine the tension in each cable.

(2) If the ring remains in the horizontal plane and the tension in each cable is not allowed to exceed 1 kN, determine the smallest allowable distance z required for equilibrium.



Example 4. The 50-kg pot is supported from A by the three cables.

(1) Determine the force acting in each cable for equilibrium.

Take $d = 2.5$ m .

(2) Determine the height d of cable AB so that the force in cables AD and AC is one-half as great as the force in cable AB . What is the force in each cable for this case?

