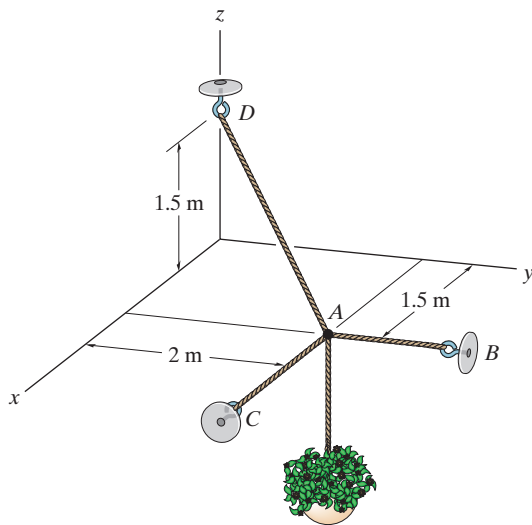


PROBLEMS

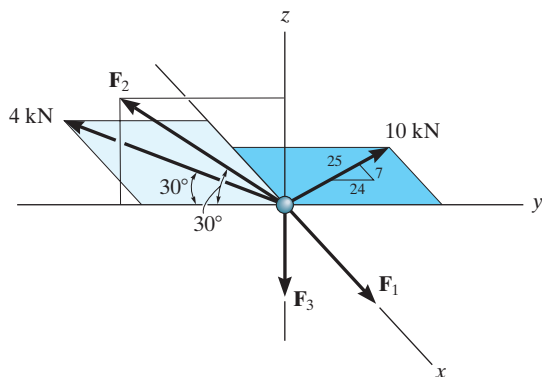
All solutions must include a free-body diagram.

3–43. The three cables are used to support the 40-kg flowerpot. Determine the force developed in each cable for equilibrium.



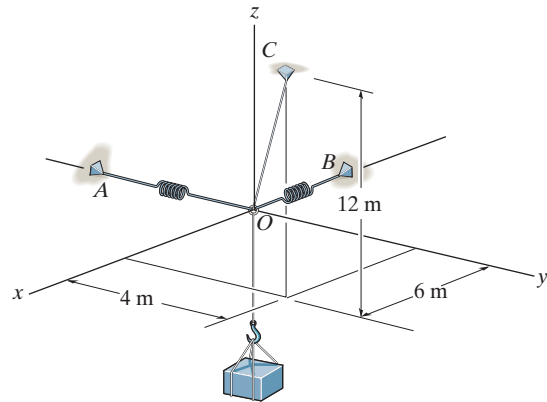
Prob. 3–43

***3–44.** Determine the magnitudes of F_1 , F_2 , and F_3 for equilibrium of the particle.



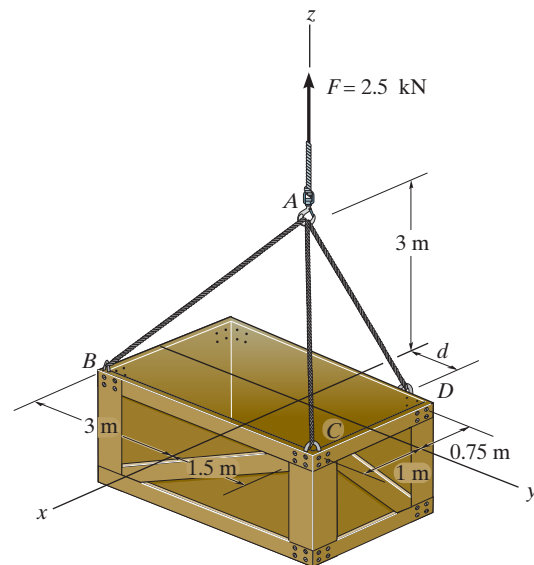
Prob. 3–44

3–45. Determine the stretch in each of the two springs required to hold the 20-kg crate in the equilibrium position shown. Each spring has an unstretched length of 2 m and a stiffness of $k = 300$ N/m.



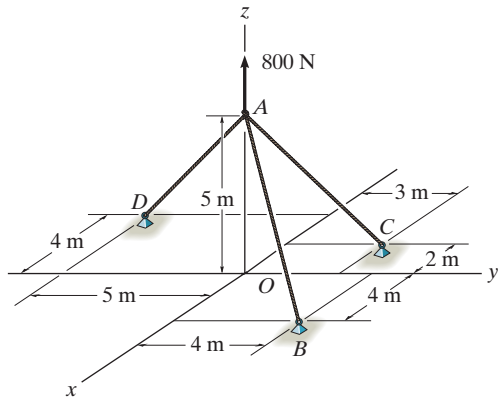
Prob. 3–45

3–46. If a vertical force of 2.5 kN is applied to the hook at A, determine the tension in each of the three cables for equilibrium. Set $d = 1$ m.



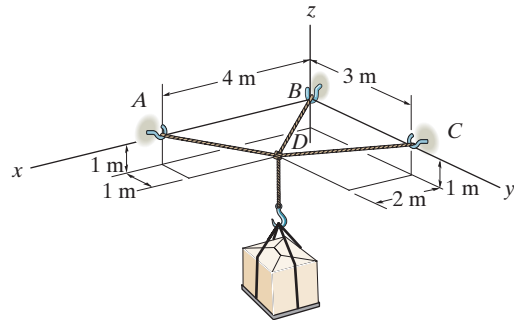
Prob. 3–46

*3-64. Determine the tension in each cable for equilibrium.



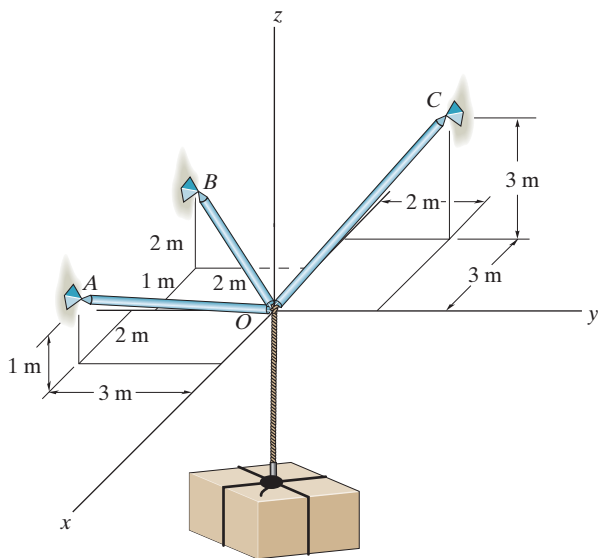
Prob. 3-64

3-66. The crate has a mass of 130 kg. Determine the tension developed in each cable for equilibrium.



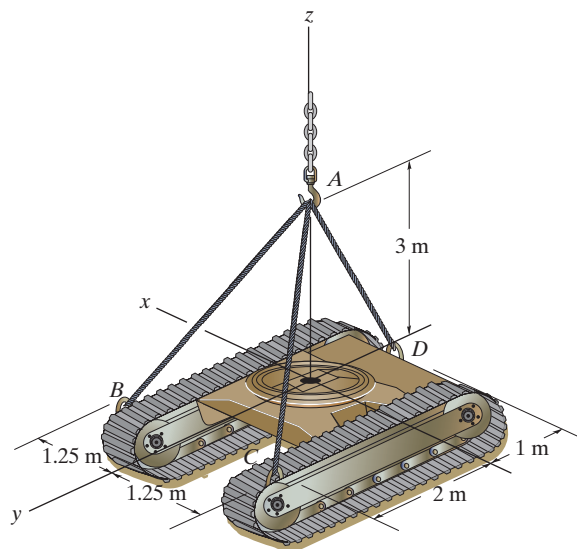
Prob. 3-66

3-65. If the maximum force in each rod can not exceed 1500 N, determine the greatest mass of the crate that can be supported.



Prob. 3-65

3-67. Determine the force in each of the three cables needed to support the tractor tread assembly, which has a mass of 8 Mg.



Prob. 3-67