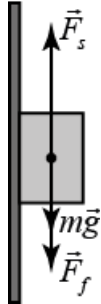
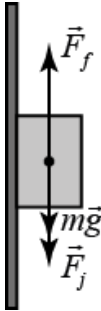


## Problema 7.2

|    |  |        |
|----|--|--------|
| a) | <p>Pentru desen cu indicarea corectă a forțelor și pentru ecuația care rezultă</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p><b>(2.0 p.)</b> <math>F_s = mg + F_f</math></p> </div> <div style="text-align: center;"> <p><math>F_f = mg + F_j</math> <b>(2.0 p.)</b></p> <p><math>F_s = mg + mg + F_j = 2mg + F_j</math></p> </div> <div style="text-align: center;">  </div> </div> <p style="text-align: center; margin-top: 20px;"> <math>F_j = F_s - 2mg = 14\text{ N} - 2 \cdot 0,2\text{ kg} \cdot 10 \frac{\text{N}}{\text{kg}} = 10\text{ N}</math> </p> <p style="text-align: center;"><b>(2.0 p.)</b></p> | 6.0 p. |
| b) | <p>Deoarece volumul ambelor lichide este același, el poate fi exprimat prin diferența maselor</p> $m_1 - m_2 = \rho_1 V - \rho_2 V = (\rho_1 - \rho_2) V \quad \textbf{(1.0 p.)}$ <p>De unde</p> $V = \frac{m_1 - m_2}{\rho_1 - \rho_2} \quad \textbf{(1.0 p.)}$ <p>Masele lichidelor vor fi</p> $m_1 = \rho_1 V = \rho_1 \frac{m_1 - m_2}{\rho_1 - \rho_2} = 1000 \frac{\text{kg}}{\text{m}^3} \cdot \frac{0,2\text{ kg}}{1000 \frac{\text{kg}}{\text{m}^3} - 800 \frac{\text{kg}}{\text{m}^3}} = 1\text{ kg} \quad \textbf{(1.0 p.)}$ $m_2 = \rho_2 V = \rho_2 \frac{m_1 - m_2}{\rho_1 - \rho_2} = 800 \frac{\text{kg}}{\text{m}^3} \cdot \frac{0,2\text{ kg}}{200 \frac{\text{kg}}{\text{m}^3}} = 0,8\text{ kg} \quad \textbf{(1.0 p.)}$  | 4.0 p. |