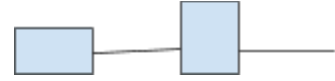




3. Cali pulls two blocks across a frictionless surface as shown. The left block has a mass of 3.0 kg and the right block has a mass of 5.0 kg. The blocks accelerate at  $1.5 \text{ m/s}^2$  to the right.



- a. Draw the free body diagram for the left block.
  - b. Find the force of the right block pulling on the left block.
  - c. Draw the free body diagram for the right block.
  - d. Calculate the force that Cali applies to the right block.
4. Chase ( $m = 50 \text{ kg}$ ) is riding an elevator while standing on a scale. At two different times along the trip, the scale reads 590 N and 440 N.
- a. Draw a free body diagram for her as he accelerates upward.
  - b. Identify which force is greater; the Force of the floor of the elevator on her or the gravitational force on him.
  - c. Draw a free body diagram for him as he accelerates downward.
  - d. Identify which force is greater; the Force of the floor of the elevator on him or the gravitational force on him.
  - e. Calculate the acceleration for each reading.