

1. A 70.0 kg man is riding an elevator **up** 5 stories.
  - a. Draw a free body diagram of the man.
  - b. What is the man's weight?
  - c. If he accelerates at  $1.87 \text{ m/s}^2$  on the way UP, what is his apparent weight?
  - d. If he slows down with an acceleration of  $-2.14 \text{ m/s}^2$  to stop at his floor, what is his apparent weight?
  
2. A 47.5 kg woman is riding an elevator **down** 3 stories.
  - a. Draw a free body diagram of the woman.
  - b. What is the woman's weight?
  - c. If her apparent weight as the elevator begins moving down is 390 N, what is her acceleration?
  - d. If her apparent weight as the elevator is slowing down is 500 N, what is her acceleration?