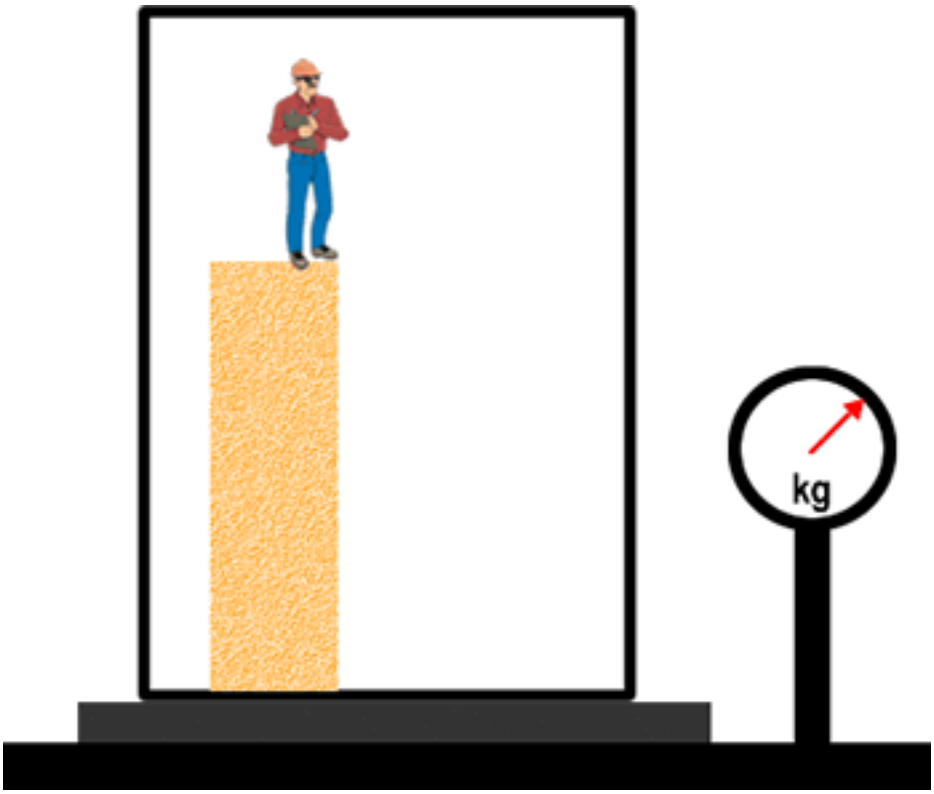
Part A

A totally sealed metal box sits on a scale. Inside the box a man stands on a wooden box. The scale reads the masses of the boxes plus the man. He then *steps* off the box. While he is in free fall, what happens to the reading on the scale?

1. It is greater than before he stepped off the box.
2. It is less than before he stepped off the box.
3. It is the same as before he stepped off the box.



Part B

When he lands on the bottom of the box, what happens to the reading on the scale?

1. It increases and then returns to the reading before he stepped off the box.
2. It increases and stays at the increased reading.
3. It stays the same as before he landed.
4. It decreases and stays at the decreased reading.
5. It decreases and then returns to the reading before he stepped off the box.