

One of two things is true about this room:

- A. It is sitting on the surface of the earth, where the acceleration due to gravity is down and equal to 9.80 m/s^2 .
- B. It is on a rocket ship in free space that is accelerating upwards at 9.80 m/s^2 .

We can bring in any apparatus that measures any properties that we wish inside the room. The room has no windows. The apparatus can not measure anything outside the room. Can we devise an experiment to determine which case is true for the room?

1. Yes
2. No