

308 Q7

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Quiz. *In this problem, why didn't we just define the motion from within the elevator?*

Because just like Newtonian mechanics, Lagrangian mechanics also requires us to do analysis in an inertial frame.

As the elevator is accelerating upward, inside the elevator is obviously not an inertial frame.

Thus, we need to define the motion from outside the elevator.

Q.E.D.