



a) Terrestrial frame of reference

b) Yes. It is an inertial reference frame since in a few seconds, the earth does not move much.

2. In any inertially reference frame isolated from any other reference, you can not tell if you are moving. According to the Galilean principle, all physical laws are the same in any inertial reference frame. So the results of any experiment would be the same whether the rail car was moving or stationary.