

1. Explain why Special Relativity is 'special' and General Relativity (via the Equivalence Principle) must incorporate a model of gravity?
2. You are in an elevator when the cable snaps and you begin to fall. At the instant the cable snapped, you dropped a ball. Describe what you would see happening to the ball. Your falling elevator is called a 'local inertial frame'. Why 'inertial' and why 'local'?
3. Describe two (real) experiments or observations that tested Einstein's ideas about gravity.
4. Describe one technology that must take into account gravitational time dilation and why.