
Exercise B5: Modern Overview of Our Solar System

Student name: _____ Class: _____ Date: _____

Check the box with the correct answer.

Question 1: Newton's first law says a body will remain in a state of uniform motion in a straight line unless it is acted upon by an outside force. What is acting upon the Hubble Space Telescope (HST) to keep it in orbit around the Earth?

- a. The gravitational pull of the Sun.
- b. The gravitational pull of the Earth.
- c. Lunar tides.
- d. Atmospheric drag.

Question 2: What is the acceleration of the Moon towards the Earth?

- a. 3.0 m/s^2
- b. $3.0 \times 10 \text{ m/s}^2$
- c. $3.0 \times 10 \text{ km/s}^2$
- d. 3.0 km/s^2

Question 3: During the Apollo 13 mission crisis, astronaut James Lovell remarked "We just put Sir Isaac Newton in the driver's seat." What did he mean by this?

- a. The mission would have failed without the application of Newton's laws.
- b. The Moon has no gravity so Newton's laws didn't apply.
- c. Earth's gravity is not strong enough to reach the Moon.
- d. The pilot's nickname was Newton.