Exercise A10: The Moon

Student name: _____ Date: _____ Class: _____ Date: _____

Check the box with the correct answer.

Question 1: The rotation period ("day") of the Moon is

- □ **a**. 24 hours
- □ b. 27.3 Earth days
- □ c. 29.5 Earth days
- □ **d**. One year

Question 2: How long does the Moon take to complete one orbit around the Earth with respect to the stars?

- □ **a.** 27.3 hours
- □ **b.** 27.3 days
- □ **c.** 29.5 days
- □ d. One year

Question 3: We always see the same side of the Moon from the Earth because:

- □ **a**. the Moon rotates once every year.
- □ **b.** the Moon rotates slower than the Earth.
- \Box c. the Moon orbits the Earth in the same time as it takes for the Earth to rotate once.

□ **d**. The rotation period of the Moon is the same as its period of revolution around the Earth.

Question 4: The Moon takes 27.3 days to complete one orbit around the Earth. How many degrees of arc does the Moon move across Earth's sky every day? [HINT: One orbit is 360 degrees.]

- □ **a.** 29.5 degrees
- □ **b.** 27.3 degrees
- □ c. 13.2 degrees
- □ **d**. 180 degrees

Question 5: The Moon appears to grow successively larger and smaller during the libration cycle. Which statement correctly explains this phenomenon?

□ a. The Moon physically shrinks and expands due to Earth's tidal influence.

□ **b**. The apparent change in size is caused by atmospheric refraction when the Moon appears close to the horizon.

□ c. The Moon's orbit is elliptical and the Earth-Moon distance varies thereby producing changes in the Moon's apparent size as seen from Earth.

□ **d**. Earth's elliptical orbit around the Sun carries the Earth closer to the Moon once a month.