Exercise C4:
The Moons of the Planets

Student name: _____ Class: _____ Date: _____

Check the box with the correct answer.

Question 1: What factor, more than any other, do you think led to Jupiter having so many moons compared to the inner terrestrial planets?

☐ **a.** The Sun is far enough away from Jupiter that its heat is insufficient to melt icy particles orbiting the planet; these particles coalesced to form moons.

☐ **b.** Jupiter's rapid rotation was important in spinning off most of these moons from its surface.

☐ **c.** Jupiter has an extensive atmosphere from which these moons have been formed.

☐ **d.** The powerful gravitational field produced by Jupiter's large mass has allowed this planet to capture moons from the nearby asteroid belt.

Question 2: The Galilean satellites, in order of decreasing diameter, are:

☐ **a.** Ganymede, Callisto, Io, Europa

☐ **b.** Ganymede, Io, Callisto, Europa

☐ **c.** Europa, Io, Callisto, Ganymede

☐ **d.** Io, Europa, Callisto, Ganymede

Question 3: Mercury has a diameter of 4,800 km. Which of the Galilean moons of Jupiter is larger than Mercury?

☐ **a.** Io

☐ **b.** Europa

☐ **c.** Callisto

☐ **d.** Ganymede

Question 4: Which factor or factors, more than any other, have allowed Titan to retain an atmosphere?

☐ **a.** Its many active volcanoes continuously replenish the atmosphere with gas, which is continuously escaping into space.

☐ **b.** The molecular constituents of its atmosphere are heavy and cannot therefore escape Titan's gravity

☐ **c.** Its surface temperature is too low to allow the nitrogen gas in its atmosphere to escape from Titan's gravitational force.

☐ **d.** Its gravitational force has allowed it to acquire atmospheric gases from Saturn.

Question 5: Phobos and Deimos most closely resemble:

☐ **a.** Asteroids

☐ **b.** Comets

☐ **c.** Planets

☐ **d.** Dwarf planets