Exercise A1: Diurnal Motion

Student name: _____ Class: _____ Date: _____

Check the box with the correct answer.

Question 1: The Sun, Moon, planets and stars rise in the ____ and set in the ____.

☐ **a.** East, West

☐ **b.** West, East

☐ **c.** East, North

☐ **d.** West, South

Question 2: What is the rate of the Sun's diurnal motion across the sky?

☐ **a.** 360 degrees per hour

☐ **b.** 15 degrees per hour

☐ **c.** 360 degrees per year

☐ **d.** 1 degree per day

Question 3: Why do we observe diurnal motion from the surface of the Earth?

☐ **a.** The stars rotate completely around the Earth once every 24 hours.

☐ **b.** The Earth rotates on its spin axis carrying an observer in a complete rotation from west to east once every 24 hours.

☐ **c.** The Earth rotates on its spin axis carrying an observer in a complete rotation from east to west once every 12 hours.

☐ **d.** The Earth rotates on its spin axis carrying an observer in a complete rotation from east to west once every 24 hours.

Question 4: Consider both of your sunrise observations. What appears to be the relationship between the angle that the track of the rising Sun makes with the horizon and the latitude of the observer?

☐ **a.** There is no difference in the angle that the track of the rising Sun makes with the horizon between these two latitudes.

☐ **b.** The higher the latitude, the greater the angle that the track of the rising Sun makes with the horizon.

☐ **c.** The lower the latitude, the greater the angle that the track of the rising Sun makes with the horizon.

☐ **d.** The angle of the rising Sun to the horizon is equal to the latitude of the viewing location.