

Figure 1

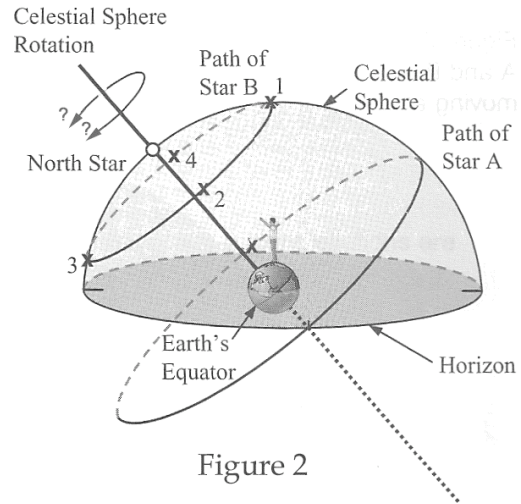


Figure 2

Unlike the Greeks, we currently believe that the motion of the stars is due to the rotation of the earth, rather than a celestial sphere that rotates around us. But which way is the earth rotating? And how is that related to the apparent motion of stars?

- 1.) We also think that the Sun's motion "across the sky" is due to the rotation of the earth. Figure 1 shows the view of the sky of someone looking Northwards. Write in East and West on the appropriate sides of Figure 1. And based on your knowledge of where the sun rises and sets, put an arrow on the "Path of Sun" indicating which direction the Sun appears to be moving during the course of the day.
- 2.) Figure 3 shows a view looking down from above the North Pole. So, which way is earth rotating? Talk this through and circle a or b.
- 3.) Do you think the stars appear to move across the night sky in the same direction, or in the opposite direction as the Sun. (Mark in Figure 1 the direction of apparent motion of the star "X".) Why, (in a sentence or three)?



Figure 3

- 4.) For an observer in the southern hemisphere, looking south, what direction would the circles of stars appear to move?