Challenge Questions

Question

What would a solar eclipse look like if you were standing on the Moon?

Answer

A solar eclipse on Earth would be an Earth eclipse to a person on the Moon, although only a small spot on the Earth would be dark. Looking at Earth, an observer on the Moon would first see our planet fully lit by the Sun. The Moon’s dark shadow spot would first show up on the western side of the Earth and then travel at approximately 2,000 km/hr (1,200 mph)—almost twice the speed of sound)—on its path across the Earth, moving from west to east. The Moon’s dark shadow as it crosses the Earth’s surface would be 100–265 km across (60–160 miles across) during different eclipses.

Question

What would a lunar eclipse look like if you were standing on the Moon?

Answer

During a lunar eclipse on Earth, someone on the Moon would see the Sun disappear behind Earth for an extended time, producing a solar eclipse as seen from the Moon. It wouldn’t get completely dark on the Moon during the eclipse because Earth’s atmosphere would bend and filter sunlight, so that some reddish-brown light would still fall on the Moon. The lunar landscape would be reddish, and Earth would have a reddish glow around it.