

1. (a) Planet Itfellowitsside will not have day and night. Since the axis of rotation is always parallel to the light coming towards it, the rotation will not be moving any areas in or out of sunlight. Additionally, since the axis points towards the sun at all times, there will be no new areas exposed to sunlight as the planet revolves around the sun.
(b) Planet Itfellowitsside will not have seasons. As the planet revolves around the sun, the rotational axis is always pointed at the Sun. Since north is also always pointed at the sun, the same side will be facing the sun at all times in a year. The northern hemisphere will always be in "summer" and the southern hemisphere will always be in "winter." Relative to the planet, there are no seasonal changes over the course of a year and so there are no seasons.
2. (a) The tilt of the planet is different than the Earth's in that it always points toward the sun. In our Solar System, the Earth's tilt stays oriented roughly the same (toward Polaris), not pointing toward the Sun except once a year.
(b) Planet Fascinatedbythesun will have day and night, but only for certain parts of the planet. Because of the 23.5° tilt, a section of the middle of the planet will pass through the terminator meaning that there will be day and night in those places.
(c) Planet Fascinatedbythesun will not have seasons. Since the axis of rotation always points toward the sun, the sun and the planet will essentially be in the same orientation relative to each other at all times. The angle that the light hits the planet will stay the same throughout the course of a year meaning the intensity of light will never change. The length of day and night also remains constant throughout the course of a year. Because of this, there will be no seasonal changes and the planet will not have seasons.