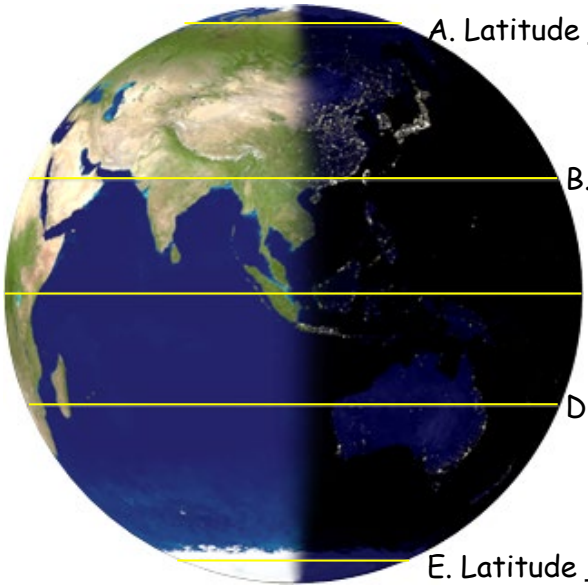
NAME Solution

Named Laitudes

Named Latitudes

There are five lines of latitude that, in addition to having numerical values, have names. They have names because they are significant in terms of Earth's seasons. For each of these latitudes indicated on the globe below, fill out the blanks:[8]



A. Latitude 66.5 °N, Name: Arctic Circle

B. Latitude 23.5 °N, Name: Tropic of Cancer

C. Latitude 0 °, Name: Equator

D. Latitude 23.5 °S, Name: Tropic of Capricorn

E. Latitude 66.5 °S, Name: Antarctic Circle

Also explain the significance of each with regard to the seasons … why does each warrant a name as well as a number? Do the back of this sheet first to figure it out. [12]

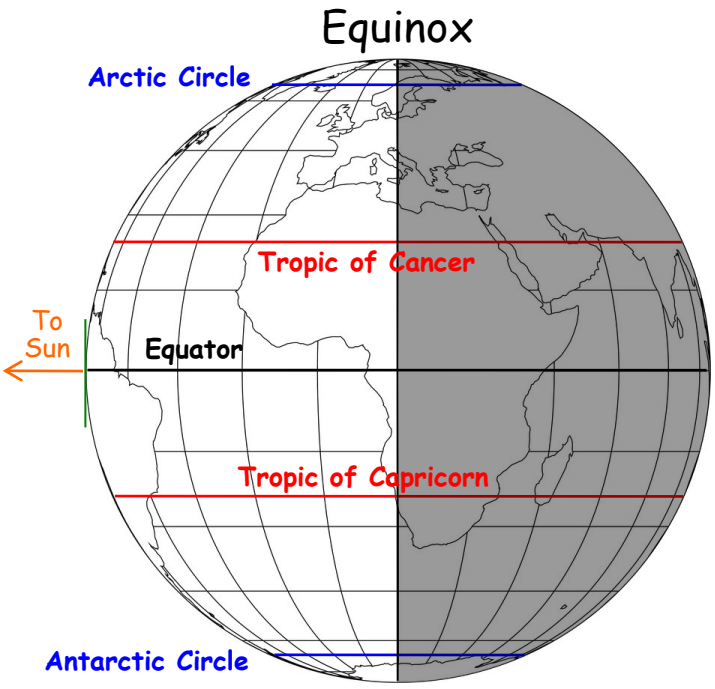
	Name	Seasonal Significance
A	Arctic Circle	Southernmost latitude to have 24 hours of light on the June solstice, 24 hours of dark on the December solstice.
B	Tropic of Cancer	Latitude that has the Sun directly overhead on the June solstice.
C	Equator	Latitude that has the Sun directly overhead on both equinoxes
D	Tropic of Capricorn	Latitude that has the Sun directly overhead on the December solstice.
E	Antarctic Circle	Northernmost latitude to have 24 hours of light on the December solstice, 24 hours of dark on the June solstice.

SEASONAL SHADOWS

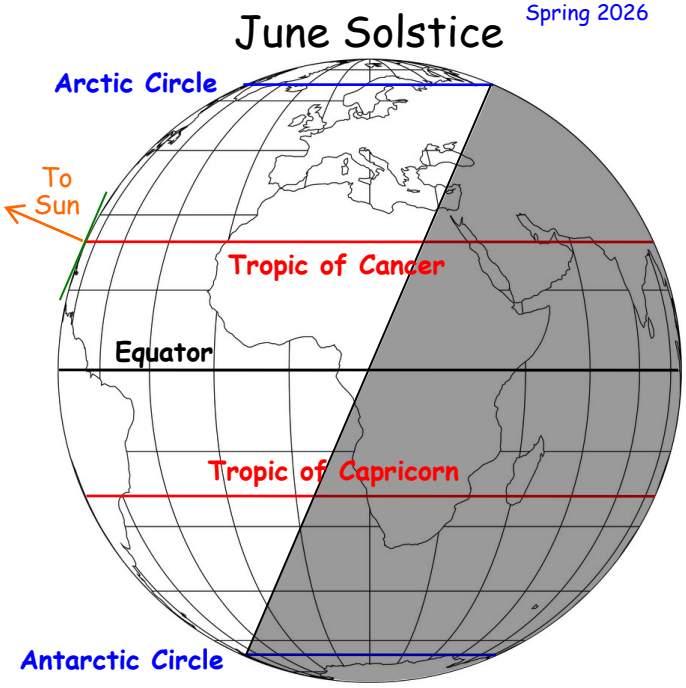
On the globe images shown, the blue latitudes are at 66.5°N and 66.5°S, the red laitudes are at 23.5°N and 23.5°S, and the dark black latitude is the equator.

a)[5] Label the blue, red and black latitudes with their names on all three globes.

b)[10] Assume the Sun is to the left and darken the shaded half of Earth as indicated and explain the connection between the named latitudes and the orientation of the shadow



EQUNOX EXPLANATION:
- Sun directly over Equator and
- Every place on Earth has 12 hours of sunlight and 12 hours of dark.



JUNE SOLSTICE EXPLANATION:
- Sun directly over Tropic of Cancer and
- North of Arctic Circle has 24 hour sunlight.
- South of Antarctic Circle has 24 hour dark.

DECEMBER SOLSTICE EXPLANATION:
- Sun directly over Tropic of Caparicorn and
- North of Arctic Circle has 24 hour darkness.
- South of Antarctic Circle has 24 hour sunlight.