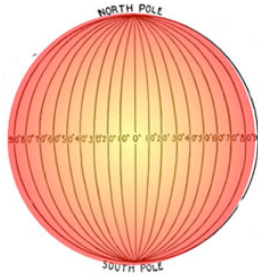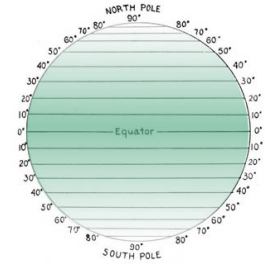# Longitude and Latitude

The ancient Babylonians divided any circle or sphere into 360 degrees. Ptolemy was a Greek thinker who borrowed the Babylonians' ideas as he wrote one of the first books book on geography. Ptolemy wrote that the furthest point at the right or left side of a circle or a sphere is 90 degrees from the top. There are 180 degrees between any two sides of a circle or sphere. This means that the north and south poles are 180 degrees apart from one another, and both poles are 90 degrees from the equator. The equator is the imaginary line that is as far away from the North Pole as it is from the South Pole.

The horizontal lines that circle the globe are called Lines of Latitude. Lines of Latitude are also known as parallels because they parallel, or run in the same direction as the equator.

The lines that run between the North and the South Poles are called Lines of Longitude, or meridians. The line at zero degrees longitude is called the prime meridian. The prime meridian was set at the Royal Observatory in Greenwich, England. Meridians are counted east and west from the prime meridian, which is numbered zero degrees longitude. The International Date Line is located 180 degrees, as far away as possible, from the prime meridian. When it is noon along the prime meridian, it is midnight along the International Date Line.

Geographers also divide the earth into hemispheres. Hemi- is a prefix that means half. Everything north of the equator is in the Northern Hemisphere, while everything south of the equator is in the Southern Hemisphere. The Western Hemisphere is west of the prime meridian, while the Eastern Hemisphere is east of the prime meridian. The hemispheres both end at the International Date Line. The United States is in the Northern and Western Hemispheres. West Palm Beach, Florida is 80 degrees west of the prime meridian and 26 degrees north of the equator. This is commonly expressed as 26°N,80°W.

Answer in complete sentences

1. How many degrees are in a circle?

_____

2. What is the equator?

_____

_____

3. What imaginary lines parallel the globe from east to west?

_____

_____

_____

*This is a higher order learning question. You must answer the question to the best of your ability, but any reasonable answer will be graded as correct.

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Fill in the Blanks

Our *p_____ is a sphere. The ancient Babylonians divided spheres or

c_____ into _____ degrees. Most Americans use a base ten numeral system, but

Babylonian arithmetic used a place-valued sexagesimal system. The Babylonian base sixty is

still used in measuring time. Sixty *s_____ equal one minute; 60 minutes equal

one *h_____.

Geographers created an imaginary grid to help locate places on earth. Lines of Latitude,

or p_____, circle the globe from e_____ to w_____. 0° latitude is known

as the e_____. The north and south p_____ are _____ ° from the equator.

Lines of L_____, or m_____, run north to south. The

p__i__e m__r__di__n runs through G_____, England.

The hour of the day is determined mostly by what part of the earth faces the *s_____.

When it is noon in Greenwich, it's close to *m_____ along the

I_____ D_____ L_____ because that line is about _____°

from the Prime Meridian, or *h__l__w__y around the world. The h_____ of the day

changes as you move e_____ or w_____ because you are moving closer to or further away

from the s_____.   West Palm Beach, Florida is at _____° north and 80° w_____. This

means we are 26° north of the e_____ and _____ degrees away from the Prime

Meridian.

Answer in complete sentences

4. West Palm Beach, Florida is at 27°N,80°W. Explain what 27°N,80°W means.

_____

_____

_____

5. Find the longitude and latitude of your home or school by going to
http://www.worldatlas.com/aatlas/latitude_and_longitude_finder.htm

_____

_____

_____

*This is a higher order learning question. You must answer the question to the best of your ability, but any reasonable answer will be graded as correct.