Flocabulary

Longitude and Latitude

Use the text to answer each question below.

1. Relative location is the position of a place compared to another place. You can use it to describe what something is next to or near. For example, you could say that Yemen is a country west of the Red Sea.

   But what if you don't know where the Red Sea is either?

   Absolute location is the exact position of a place on Earth. To describe it, you can use coordinates of latitude and longitude. For example, Spanish Town, Jamaica, is located at 18°N, 77°W. Anyone can use a map to find that exact spot on the globe.

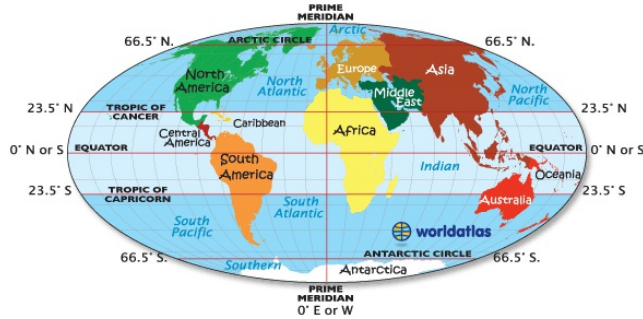   Which of the following correctly describes the relative location of Saudi Arabia?

   A. Saudi Arabia shares its eastern border with Sudan.

   B. Saudi Arabia is south of Ethiopia.

   C. Saudi Arabia is north of Yemen.

   D. Saudi Arabia is between Djibouti and Somalia.

2. Latitude lines run east to west around the globe. You can remember it this way: **Lat**itude lines are **flat**!

Latitude lines run east to west, but they actually give us a location that is a certain number of degrees north or south of the equator. If you were 50 degrees north of the equator, your latitude would be 50° N.

Which of the following describes a line of latitude?

A. 30° W

B. 90° S

C. 40° E

D. all of the above

3. In math, angles are used to describe sections of a circle. Since the Earth is round, we measure latitude and longitude with the same measurement that we use for angles: degrees. The symbol for degrees looks like this: °

When we write the coordinates of a location, we write the latitude first (north or south) and then the longitude (east or west). We separate the two with a comma.

When a place does not land on a whole number degree, there are a few ways to describe absolute location. One way is to use decimals to describe a portion of a degree. Yerevan, Armenia, is 40.2 degrees north of the equator (latitude) and 44.5 degrees east of the Prime Meridian (longitude). It's located at: 40.2° N, 44.5° E.

Bedford, Pennsylvania, is very close to the 40°N line of latitude but not exactly on it. Which of these is true?

A. You can't describe Bedford's absolute location.

B. 40° N is as close as you can describe Bedford's latitude.

C. Bedford has longitude but no latitude.

D. You can describe Bedford's latitude with a decimal.

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4. Did you know that the region of Earth surrounding the equator is called the tropics? This area is between the Tropic of Cancer at 23.5° N and the Tropic of Capricorn at 23.5° S latitude. The tropics experiences no dramatic change in seasons because the sun is always high in the sky. People who live north of the Tropic of Cancer and south of the Tropic of Capricorn—that is, farther from the equator in either direction —experience more dramatic seasonal climate changes.

Which of the following continents is entirely outside of the tropics?

A. Africa

B. Europe

C. Asia

D. Australia

5. A hemisphere is a half of the globe. The equator splits the globe into the Northern and Southern Hemispheres. The Prime Meridian splits the globe into the Eastern and Western Hemispheres.

Even without a map, latitude and longitude tell us the hemispheres in which a place is located. For example, Foso, Lesotho, is located at 29.2° S, 27.3° E. This tells us it is south of the equator (latitude) and east of the Prime Meridian (longitude). We know from these coordinates that it's in the Southern and Eastern Hemispheres.

Which of these coordinates describes a place in the Northern and Western Hemispheres?

A. 100° N, 18° W

B. 29.2° S, 27.3° E

C. 30° N, 45° E

D. 2° N, 1° E

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6. The degrees of latitude and longitude are actually pretty far apart. When we round latitude and longitude to the nearest degrees, we might actually be naming something that's close to where we are, but not our exact point.

Sometimes to be more precise, we use decimals. If we want to keep to whole numbers, another way to be more precise is to measure with a smaller unit than a degree: a minute. There are 60 minutes in each degree. We show minutes with this little dash: '.

We can get even more specific than minutes by using an even smaller measurement called seconds. There are 60 seconds in each minute. We show seconds with this double dash: ".

If we needed to give very exact coordinates, we could say: 3° 9' 36" S, 60° 1' 48" W. We could use decimals to describe this same location as 3.13° S, 60.03° W.

Which of the following describes the most precise absolute location?

A. 10° S, 15° E

B. 10° 20' S, 15° 25' E

C. 10° 20' 45" S, 15° 25' 45" E

D. South of the equator and east of the Prime Meridian