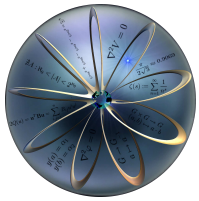

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great circle

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The intersection of a sphere with a plane that passes through the center of the sphere is called a *great circle*. Note that it is equivalent to say that a great circle of a sphere is any circle that lies on the surface of the sphere and has maximum circumference. Geographically speaking, longitudes are examples of great circles; however, with the exception of the equator, *no* latitude is a great circle.

Infinitely many great circles pass through two antipodal points of a sphere. Otherwise, two distinct points on a sphere determine a unique great circle.

An arc of a great circle is called a *great arc*.

Note that great circles and great arcs are geodesics of the surface of the sphere on which they lie. Thus, in spherical geometry, if a sphere is serving as the model, then are defined to be great circles of the sphere, and are defined to be great arcs of the sphere.