Geometry spherical geometry facts:

Shortest paths between points on a sphere lie on _____

Latitude lines are sometimes/always/never shortest paths (if the answer is sometimes, explain when it is true)

The sum of angles in a spherical triangle is always _____

Two spherical lines are sometimes/always/never parallel (if the answer is sometimes, explain when it is true)

The spherical angle $\angle NBC$ where N is the north pole, and B and C are both on the equator is _____

If one triangle has a larger area than another triangle (for example if the smaller triangle is contained in the larger), then the sum of the angles in the larger triangle is _____

A triangle can be rotated on a sphere in a way that preserves distances and angles, and each new point makes the same angle with the point of rotation and its pre-image True/False (explain)

A triangle can be reflected across a great circle on a sphere in a way that preserves distances and angles, and each point lies on the opposite side of the reflection great circle. True/False (explain).

A triangle can be translated to a different position on a sphere in a way that preserves distances and angles, and each new point is the same distance from its pre-image. True/False (explain)