

Name: _____ Date: _____

Spherical Trigonometry Day 1 Worksheet

Directions: Answer the following questions. You may use Spherical Easel, your textbook, or allowed Internet sites.

1. In your own words, what is the definition of a sphere?
2. What is the textbook definition of a sphere?
3. Circle the correct answer: All points on the surface of the sphere are _____.
 - a) equidistant from a stationary point on the surface of the sphere
 - b) equidistant from the center of the sphere
 - c) equidistant from a point located above the surface of the sphere
4. Construct a point on the surface of the sphere using Spherical Easel. Use the construction menu to create the antipode to this point. Name two special points on the Earth that are directly opposite to each other. Can you think of any other special points on other spherical surfaces?
5. Try to construct a “line” on the surface of the sphere and explore. What is this object?
6. Construct a great circle. What is the definition of a great circle?
7. Name examples of great circles on the Earth.
8. Do parallel great circles exist? Why or why not?
9. Construct a two sided polygon on the sphere’s surface by intersecting two great circles. This figure is called a _____.
 - a) wedge
 - b) slice
 - c) lune
10. Construct a spherical triangle. What are some properties that are different between planar triangles and spherical triangles?
11. Describe at least two discoveries that your group has made using the spherical easel.