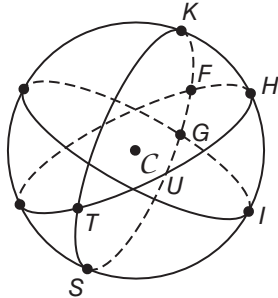


12-7 Skills Practice

Spherical Geometry

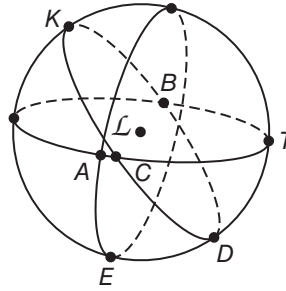
Name two lines containing point K , a segment containing point T , and a triangle in each of the following spheres.

1.



\overleftrightarrow{SF} and \overleftrightarrow{IH} , \overline{SG} , and $\triangle STH$

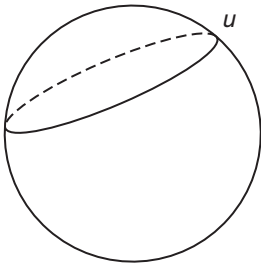
2.



\overleftrightarrow{BD} and \overleftrightarrow{ET} , \overline{CA} , and $\triangle ATE$

Determine whether figure u on each of the spheres shown is a line in spherical geometry.

3.



No

4.



Yes

Tell whether the following postulate or property of plane Euclidean geometry has a corresponding statement in spherical geometry. If so, write the corresponding statement. If not, explain your reasoning.

5. If two lines form vertical angles, then the angles are equal in measure.

Yes. The same statement works in spherical geometry.

6. If two lines meet a third line at the same angle, those lines are parallel.

No. There are no parallel lines in spherical geometry.

7. Two lines meet at two 90° angles or they meet at angles whose sum is 180° .

Yes. The same statement works in spherical geometry.

8. Three non-parallel lines divide the plane into 7 separate parts.

No. Three lines divide the plane into 6 or 7 separate parts.