**Hyperbolic Geometry properties:**

**Lines**:

|  |  |
| --- | --- |
| In Hyperbolic Geometry, if you use a crocheted model, how can you find a straight line? | In hyperbolic geometry, two distinct lines intersect in…  In hyperbolic Geometry, if you have a line  and a point *P* that is not on it, then there is/are \_\_\_\_\_\_ line(s) through the point *P* that do(es) not intersect line . |

**Congruent triangles**:

|  |  |  |
| --- | --- | --- |
| Does SAS work? | Does ASA work? | Does SSS work? |

**Angles in a triangle and similar triangles:**

|  |  |
| --- | --- |
| In Hyperbolic Geometry, if you measure the angles in a triangle and add them up, you get… | In Hyperbolic Geometry, if you make two triangles  and  and  and  but , are the angles  and  congruent, and if not which is larger? |

**Transformations:** Tell whether each of the following is possible on a hyperbolic plane. If it is possible, describe what it’s like. If it’s not possible explain why not.

|  |  |  |
| --- | --- | --- |
| Is it possible to reflect across a hyperbolic line? | Is it possible to rotate around a point on the hyperbolic plane? | Is it possible to translate on a hyperbolic plane? |