Properties of Euclidean, Hyperbolic, and Elliptic Geometries:

Euclidean	Hyperbolic	Elliptic
Two distinct non-parallel lines intersect in one point.	Two distinct non-parallel lines intersect in one point.	Two distinct non-parallel lines intersect in *at least* one point.
The sum of the measures of the angles of a triangle is 180.	The sum of the measures of the angles of a triangle is less than 180.	The sum of the measures of the angles of a triangle is more than 180.
Similar triangles that are not congruent exist.	Similar triangles are congruent.	Similar triangles are congruent.
Rectangles exist.	No quadrilateral is a rectangle.	No quadrilateral is a rectangle.
A line does not have finite length and is unbounded.	A line does not have finite length.	A line has finite length and is unbounded.
Two parallel lines are equidistant.	No two parallel lines are equidistant.	Parallel lines do not exist.
The summit angles of a Saccheri quadrilateral are right angles.	The summit angles of a Saccheri quadrilateral are acute angles.	The summit angles of a Saccheri quadrilateral are obtuse angles.
Two distinct lines do not enclose a finite area.	Two distinct lines do not enclose a finite area.	Two distinct lines enclose a finite area.
The area of a triangle is equal to half the product of the base and height.	The area of a triangle is proportional to its "defect".	The area of a triangle is proportional to its "excess".
A unique line perpendicular to a given line through a point not on the line.	A unique line perpendicular to a given line through a point not on the line.	All lines perpendicular to a given line intersect in a least one point.
A line separates a plane.	A line separates a plane.	Lines may or may not separate a plane.