MATH 2 - GEOMETRY BACKSTORY RUBRIC

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

You are grouped to share resources. You may use the internet or your own knowledge to create a Back-Story Booklet. Although you are working with other people in your group, you must create your own project – this is not a group project. If you want to go the distance, you may use a ruler, protractor, compass or stencils when drawing your diagrams (not required, but encouraged).

Fold a booklet

Number pages (1-6)

\_\_\_\_\_ Page 1 – Cover

* Write a Geometry word for every letter of your last name

\_\_\_\_\_ Page 2 – Isosceles Triangles

* Draw and label three different Isosceles Triangles (an obtuse, an acute and a right) – include congruence marks for sides, base angles and label the vertex angles.

\_\_\_\_\_ Page 3 – Right Triangles and the Pythagorean Theorem

* Draw and label a Pythagorean Triple Right Triangle and include the Pythagorean Theorem – label legs and hypotenuse
* Draw and label the Special Isosceles Right Triangle (45,45,90)
* Draw and label the Special Right Triangle (30,60,90) including short leg and long leg

\_\_\_\_\_ Page 4 – Triangle Congruence Theorems

* Draw all pairs of triangles showing the five congruence theorems – SSS, ASA, SAS, AAS

\_\_\_\_\_ Page 5 – Similar Triangles

* Define Similar Triangles
* State the three ways to prove 2 triangles are similar to each other and draw a picture to model each situation

\_\_\_\_\_ Page 6 Triangle Theorems

* State the triangle Sum Theorem
* Write an equation about the three angles of a triangle.
* What is an exterior angle of a triangle? Draw a picture
* State the Exterior angle of a triangle Theorem.
* Midsegment Theorem- Define midsegment of a triangle, draw and label a picture to represent the midsegments of a triangle.

\_\_\_\_\_ Page 7 Parallel Lines and Angles

* Define parallel lines and draw a picture
* Define alternate interior angles and draw a picture
* Define alternate exterior angles and draw a picture
* Define same side interior (consecutive) angles and draw a picture
* If two parallel lines are cut by a transversal, what 3 things are true?

\_\_\_\_\_ Page 8 Angle Bisectors and Perpendicular Bisectors in a triangle

* What is an angle bisector in a triangle? What is the relationship of the angle bisectors of a triangle? Draw a picture to model the situation.
* What are perpendicular bisectors of a triangle? What is the relationship of the perpendicular bisectors of a triangle? Draw a picture to model the situation.

Each page is 10 points and bonus points are available. Pages are graded on information, organization, thoroughness & accuracy. Keep this rubric when putting together your backstory. Turn this page in with your project.

TOTAL POINTS (SCORE) \_\_\_\_\_\_\_\_\_\_/\_\_\_\_\_\_\_\_\_\_