Name: Key Date: Hour:

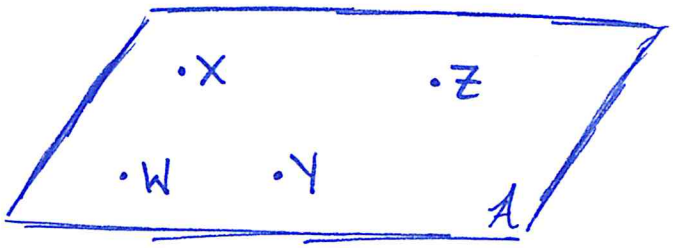
Vocabulary/Naming/Notation Review

1. $\overline{LM}$ is an example of a(n) Segment.
2. Give 3 unique names for the following figure: Answers Vary. Ex: ℓ, $\overleftrightarrow{QR}$, $\overleftrightarrow{ST}$

3. Using the above figure, name all of the distinct rays: Must name 6 rays.

4. Sketch an example of a plane which could be named Plane XYZ or Plane $\mathcal{A}$:

Answers Vary. Ex.



5. Define a bisector and give two examples of different types we've discussed in class.

A bisector is a line, ray, or segment which divides another figure into two equal halves.

Examples from class: Angle bisector, Perpendicular bisector, Segment bisector

6. Give two examples of an isometry: Translation / Reflection / Rotation
7. Give three examples of rigid transformations which can be found in the real world and explain which transformations they are: Answers Vary

8. Why is a dilation not an example of a rigid transformation?

Does not preserve size/congruence

9. Write a single ordered pair rule to represent the following transformations:

   a. Vertical stretch: Answers Vary

   b. Dilation with a scale factor of 1/2: $(x, y) \rightarrow (\frac{1}{2}x, \frac{1}{2}y)$

   c. Reflection over y = x: $(x, y) \rightarrow (y, x)$

   d. Translation left 6 units and up 3 units: $(x, y) \xrightarrow{\langle -6, 3 \rangle} (x-6, y+3)$

   e. Rotation of 180° about the origin: $(x, y) \rightarrow (-x, -y)$

   f. Horizontal compression: Answers Vary

10. What are the four key features required in a definition of a rotation?

- Center
- Angle of rotation
- Direction
- Preimage → Image

11. When dilating or stretching/compressing a figure, are any values not possible for the scale factor? Explain.

Zero or any negative values are not possible. With a factor of zero, there would be no image, so no transformation. With a negative value, it represents a reflection, not a dilation/stretch.

12. A friend is looking in a mirror and claims that what they see is the same as rotating 180°. Is this correct? Justify your answer.

No, justifications vary.