Geometry Regents Lomac 2015-2016 **Date** 10/6 **due** 10/7 **Constructing Reflections** **2.4R**

☐ **DO NOW –** On the back of this packet

Name _____

LO: I can construct a **reflection** of a figure, explain how the construction works, and use reflection function notation to describe the reflection.

☐ (1) notes **Just the facts:**

☐ For a given circle, all radii are _____

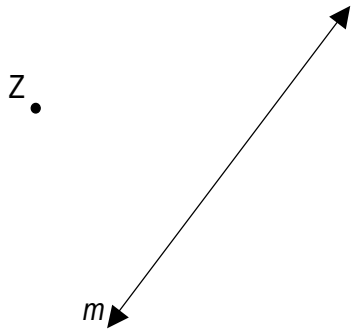
☐ The points on a perpendicular bisector are located so that they are _____

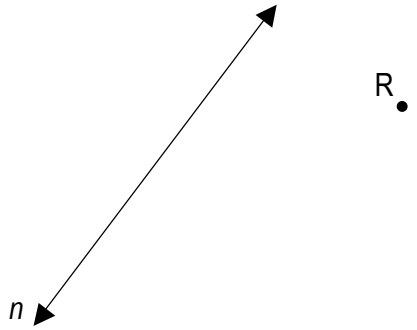
_____

☐ The line of reflection between a point and its image is the _____ of the segment that connects the point to its image.

☐ (2) compass **Reflections**

☐ Use the facts above to construct the reflection of point Z across line *m*.
Then construct the reflection of R across line *n*.

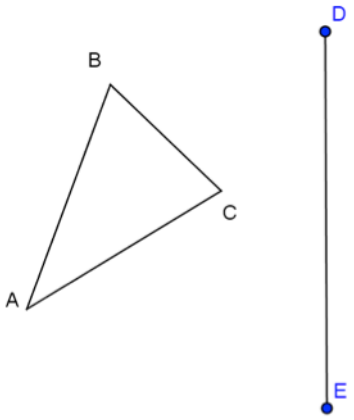




Write the reflection function _____ Write the reflection function _____

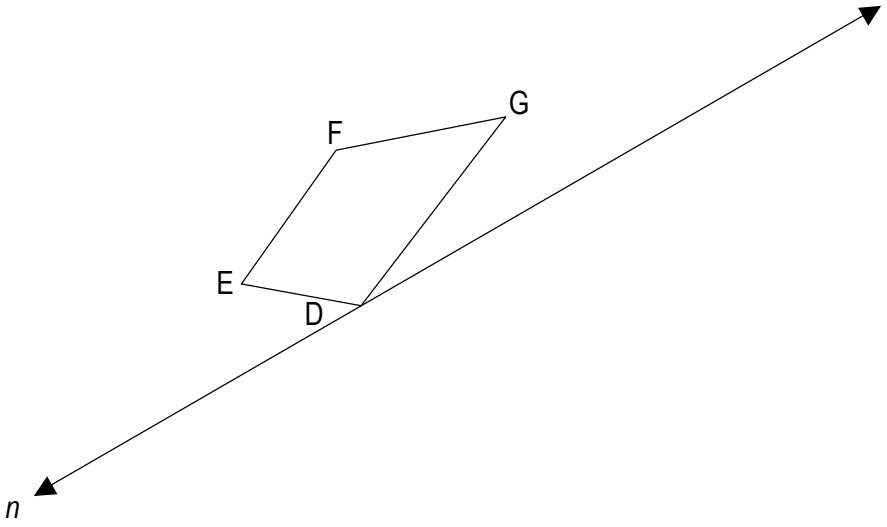
☐ (3) compass **Reflection practice** Construct the reflection of each figure across the given line or line segment.

(a) ☐ Write the reflection function _____

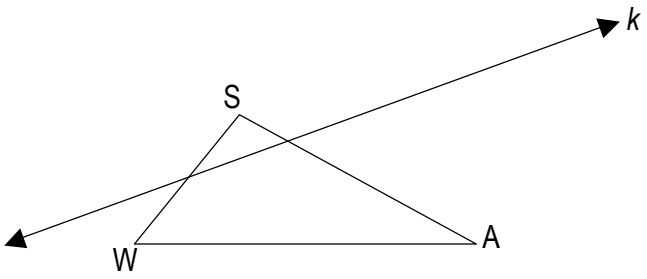


☐ (3) cont. **Reflection practice** Construct the reflection of each figure across the given line or line segment.

☐ (b) Write the reflection function _____



☐ (c) Write the reflection function _____



☐ (4) **Constructing reflections explained**

☐ Describe the steps you took to reflect △ABC in problem 3 and how they guarantee that you have constructed the reflection of △ABC.

_____

_____

_____

_____

_____

_____

_____

_____

_____

☐ (5) **Exit Ticket**

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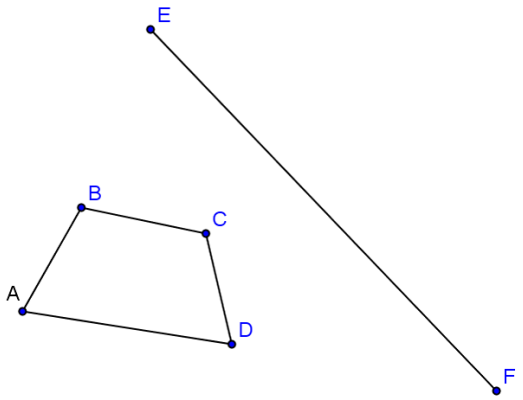
☐ (6) **Homework**

☐ (1) Construct the reflection of ABCD. Write the reflection function _____



☐ (2) Use your notes to describe the reflection function in words and sketch a labeled diagram including the line of reflection to illustrate the function.

☐ $r_{\overline{AB}}(Q)$ means: _____ looks like:

_____

_____

☐ $r_{\overline{GR}}(\triangle MZW)$ means: _____ looks like:

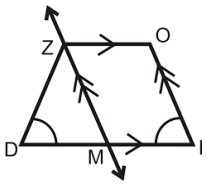
_____

_____

☐ (4) cont, compass highlighters

Homework

☐ (3) Name the congruent parts in the diagrams below



Example:

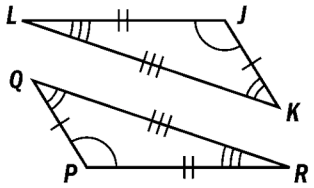
$\angle D \cong \angle I$

(same marks)

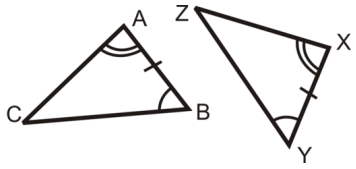
no other parts congruent

because there are no dashes

only parallel arrows

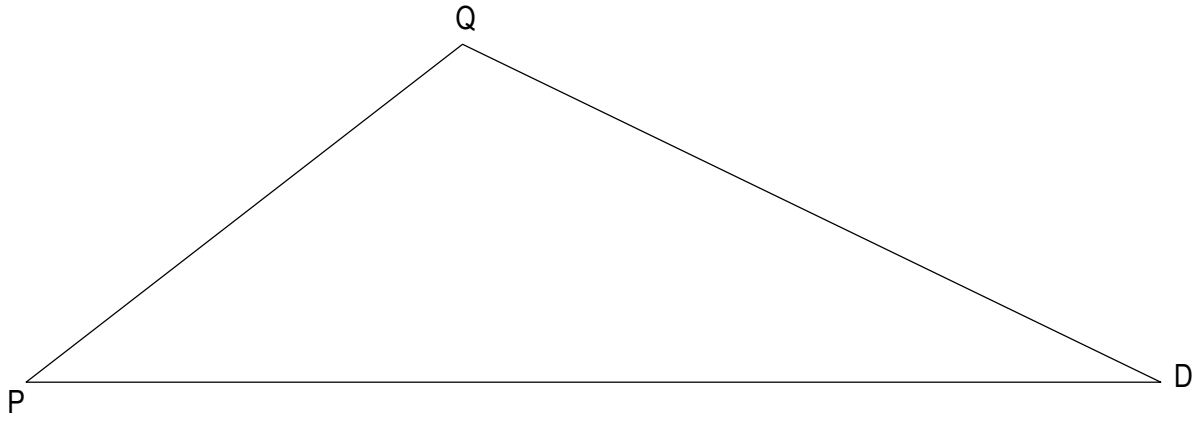


1.



2.

☐ (4) Construct a copy of angle Q from triangle PDQ.



Exit Ticket Name_____ Date _____ _____ Per_ _____ 2.4R

(1) The LO (Learning Outcomes) are written below your name on the front of this packet. Demonstrate your achievement of these outcomes by doing the following:

☐ (a) Draw line *m* and draw point S so that it is not on line *m*.

☐ (b) Construct the reflection of S across line *m* and label it S'.

☐ (c) Write the reflection function _____

☐ (d) Describe how you know your construction guarantees the reflection of S.

DO NOW **Name**_____ **Date** _____ **Per**_____ **2.4R**

(1) Draw $\overline{CD}$ and construct the perpendicular bisector of $\overline{CD}$. Pick a random point on the perpendicular bisector and label it E. What is the relationship between points E, C, and D? (Write something other than E is on the perpendicular bisector of $\overline{CD}$.)

(3) Are the pieces for this Tic Tac Toe board "X's" and O's" or "V's" and arches? Explain what is going on.