☐ **DO NOW – Geometry Regents Lomac 2014-2015** **Date** 9/22 **due** 9/23 **Folding Perpendicular Bisectors** **1.4**

(1) Name, Group Number, Lesson Number, Date

(2) Sketch
(a) a bisected segment
(b) a bisected angle

(3) Put the DO NOW/EXIT TICKET packet away.

Name _____**Per**_____

SLO: I can describe what a perpendicular bisector is, make one by folding, and can explain how the folding makes the perpendicular bisector.

☐ (1) step a pages, scissors cup

Notes:

☐ (a) Obtain "1 Construction Notes Page 3 & 4", a descriptions page, scissors, and tape or glue

☐ (b) Cut, arrange, check, and then glue or tape down the descriptions

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☐ (2) segment diagrams ruler

Folding Perpendicular Bisectors:

Use the segments on the paper strip of segments to complete each item below.

☐ **Part A:** (1) Fold $\overline{AB}$ so that point A and point B meet exactly – the dots should touch.
(2) Crease the paper on this fold.
(3) Use a ruler and pencil to draw the line made by the crease.
(4) Label the new line CD and draw arrows at its ends.
(5) Label the intersection of $\overline{AB}$ and $\overleftrightarrow{CD}$ with the letter E.
(6) Repeat steps 1 through 5 for $\overline{FG}$ (label the new line HI and the point of intersection J),
$\overline{KL}$ (label the new line MN and the point of intersection O),
$\overline{PQ}$ (label the new line RS and the point of intersection T),
$\overline{UV}$ (label the new line WX and the point of intersection Y).

☐ **Part B:** Write the pair of segments that are congruent for each diagram.

$\overline{AB}$: _____≅_____ $\overline{FG}$: _____≅_____ $\overline{KL}$: _____≅_____ $\overline{PQ}$: _____≅_____ $\overline{UV}$: _____≅_____

☐ **Part C:** How do you know that the segments you listed above are congruent?

_____

_____

☐ **Part D:** Based on what you found in parts A-C, points E, J, O, T, and Y are _____ and $\overleftrightarrow{CD}$, $\overleftrightarrow{HI}$, $\overleftrightarrow{MN}$, $\overleftrightarrow{RS}$, and $\overleftrightarrow{WX}$ are _____.

☐ **Part E:** You described one relationship in the diagrams. There is another relationship in the diagrams. What do you think it is? _____

We know this because ∠AEB is a _____ angle which means its measure is _____. AND, when we folded so that point A and point B coincide, we bisected the angle like we did in lesson 1.3. So, the measure of ∠AEB is _____ and when we folded ∠AEB, we _____ it. That means ∠AEC must be half of _____ which is _____ and when lines intersect at _____ they are_____.

☐ (3) **Exit Ticket**

Describe how to fold a segment to make a perpendicular bisector. Include all the information about how we know that the segment is bisected by the crease and how we know that the segment is perpendicular to the crease.

☐ (4)
compass
highlighter
s

HOMEWORK:

Bisect means: _____ it looks like:

_____

_____

Congruent means: _____we show it with the symbol _____

it looks like: (one for angles, one for segments)

Perpendicular means: _____ it looks like:

_____

_____

Obtuse angle means: _____ it looks like:

_____

_____

Acute angle means: _____ it looks like:

_____

_____

Right angle means: _____ it looks like:

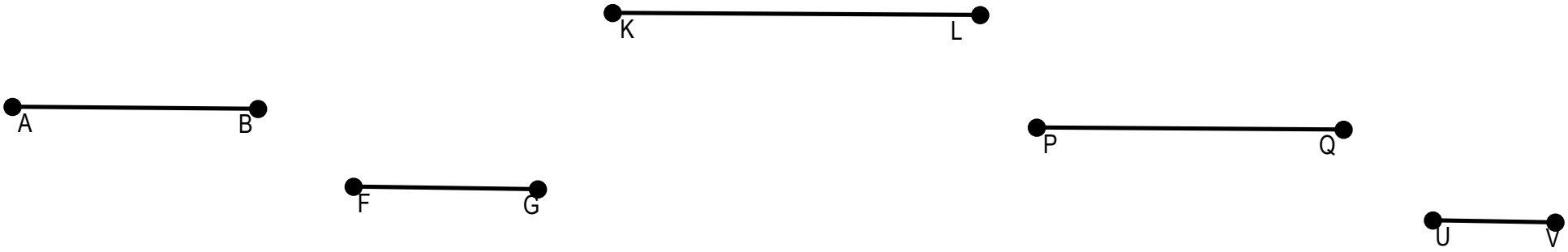
_____

_____

Straight angle means: _____ it looks like:

_____

_____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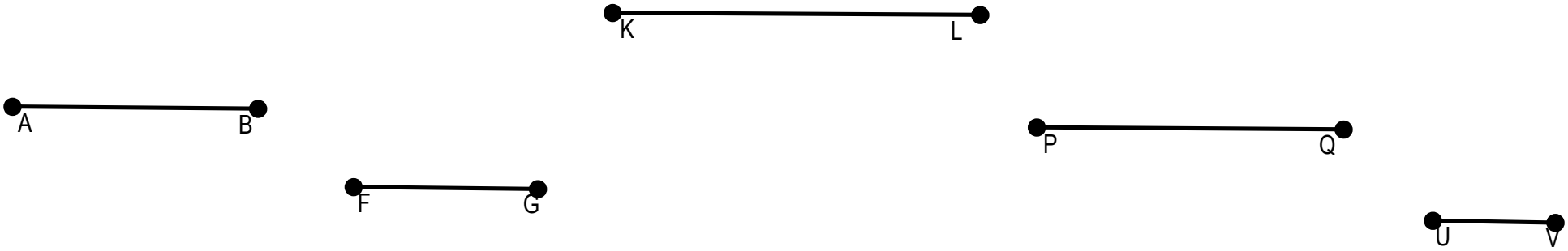
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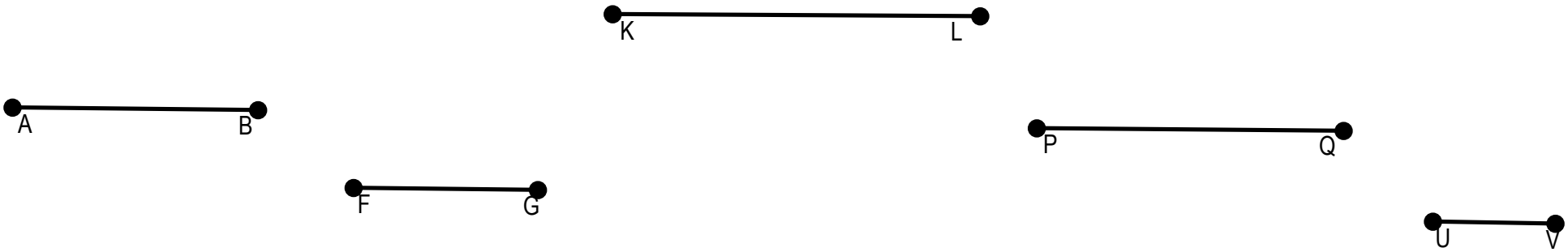
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