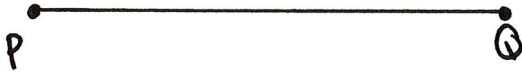


hint sheet

Name _____

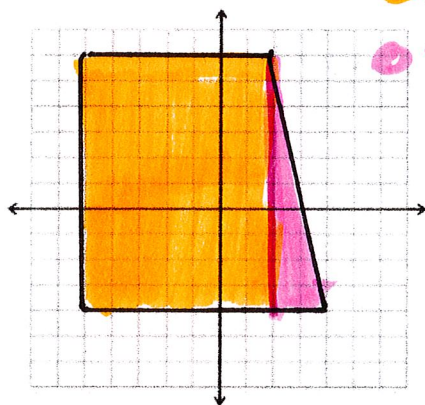
Transformation TH HW 4

1. construct the perpendicular bisector to \overline{PQ}
(hint: the steps are on hw 3, and on mathopenref.com)



2. list the steps in order for the perpendicular bisector construction:

3. find the area of the figure



$b \cdot h$
 $\frac{1}{2}bh$

4. Label each statement as

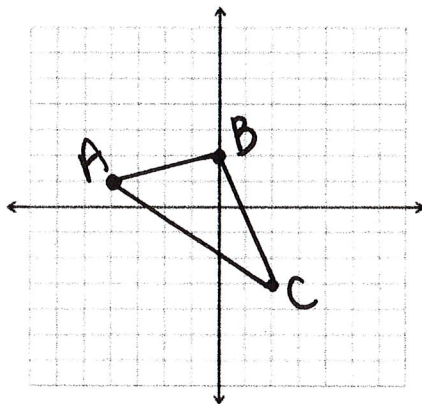
A Formal definition

B description

C other: there are three undefined terms in Geometry!

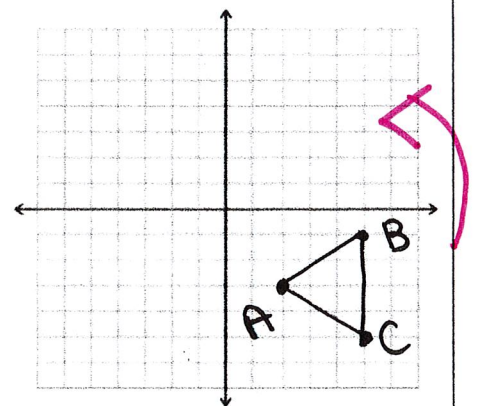
1. _____ A plane is a thin surface that extends indefinitely in all directions
2. _____ A point is a location
3. _____ A line is a series of points that extends indefinitely in both directions
4. _____ Opposite rays must start with the same letter and go in different directions
5. _____ A circle is the locus of all points equidistant to a central point.

5. Dilate with a scale factor of 2 with center A.
Name the parallel sides: (hint: count from the center!)

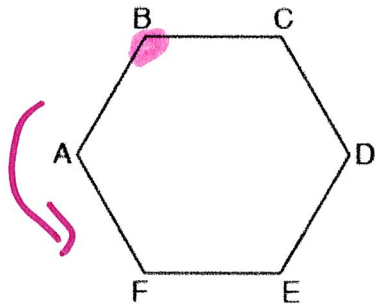


6. rotate 90° counterclockwise about the origin, then reflect over the y axis
Name the coordinates:

A' _____
B' _____
C' _____



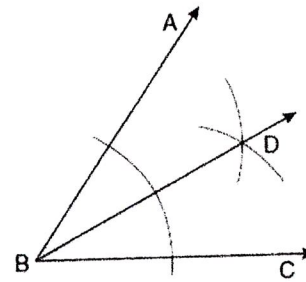
7. State the image if you rotate point B 240° counterclockwise about the center of the hexagon,



$$\frac{360^\circ}{6} =$$

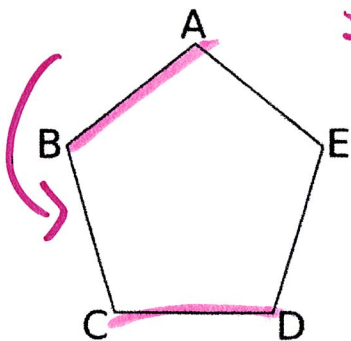
8

Based on the construction below, which statement must be true?



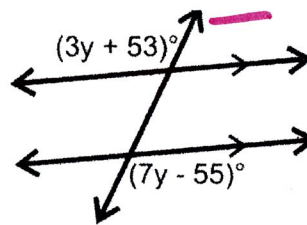
- 1) $m\angle ABD = \frac{1}{2}m\angle CBD$
- 2) $m\angle ABD = m\angle CBD$
- 3) $m\angle ABD = m\angle ABC$
- 4) $m\angle CBD = \frac{1}{2}m\angle ABD$

9 How many degrees would you rotate counterclockwise to map \overline{AB} onto \overline{CD} ?



$$\frac{360^\circ}{5} =$$

10 solve for y:



11 Consider a regular decagon. $\rightarrow 10!$
State the number of lines of symmetry:

State the angle of rotation: _____

12 Consider a regular octagon. $\rightarrow 8$
State the number of lines of symmetry:

State the angle of rotation: _____