Name ____ TH #8

1. The following are steps to the **perpendicular bisector construction**, out of order. Place the correct numbers next to each step.

________ Draw an arc above and below the segment (or a semicircle)

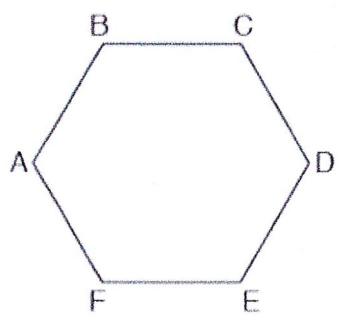
_______ use a straightedge to connect the intersections of the arcs.

_______ Start with $\overline{PQ}$, place your compass on P and open it to more than halfway across the segment.

_______ without changing the compass setting, place your compass on Q and make arcs above and below the segment (or semicircles)

2. Construct the perpendicular bisector $\overline{PQ}$

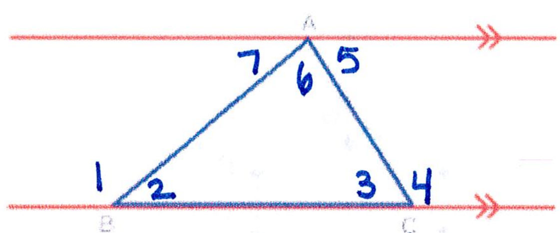
3. State the image if you rotate point B 180° counterclockwise about the center of the hexagon



4. Write the equation of a line PERPENDICLUAR to the line y = -2x + 6 and passes through (-16, 20)

5. . solve for the missing angles. $m\angle 3 = 55°$ and $m\angle 7 = 28°$

$m\angle 1$ ____ $m\angle 2$ _______ $m\angle 4$ _______ $m\angle 5$ _____

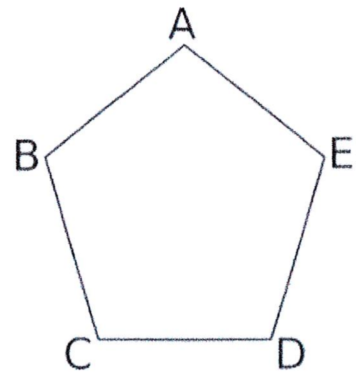


6. in problem #5, describe the angles:

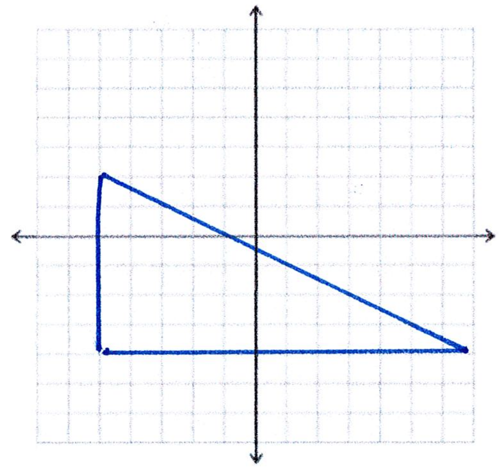
$\angle 3$ and $\angle 5$ ___________________________

$\angle 1$ and $\angle 2$ ___________________________

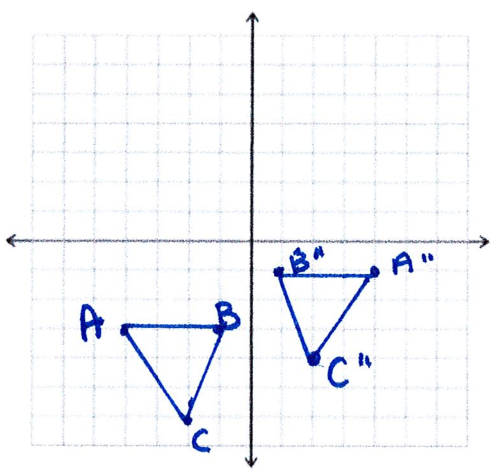
7. If you rotate the pentagon 216° counterclockwise, name the image of $\overline{DE}$ _____



8. Find the perimeter of the triangle



9.



10. Which series of rigid motions proves that $\Delta ABC \cong \Delta A'B'C'$?

A.reflect over y = x, then reflect over the x-axis

B. reflect over x = -1 then rotate 180°

C. Reflect over the line y = -1, then rotate 180°

D. Reflect over the x-axis, then rotate 180°

11. __________Which is NOT valid theorem proving $\Delta ABC \cong \Delta A'B'C'$?

A. SSS; $\overline{AB}$ is taken to $\overline{A'B'}$, $\overline{AC}$ is taken to $\overline{A'C'}$, $\overline{BC}$ is taken to $\overline{B'C'}$

B. AAA; ∠A is taken to ∠A', ∠B is taken to ∠B', ∠C is taken to ∠C',

C. AAS; ∠A is taken to ∠A', ∠B is taken to ∠B', $\overline{BC}$ is taken to $\overline{B'C'}$

D. ASA; ∠A is taken to ∠A', ∠B is taken to ∠B' $\overline{AB}$ is taken to $\overline{A'B'}$

Diagram for 11