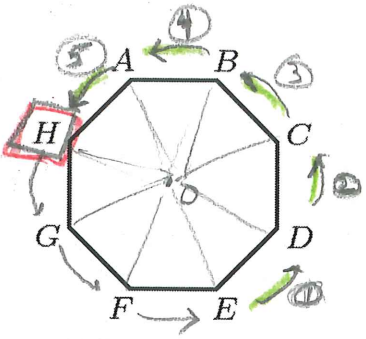
Solutions

CO-A3a

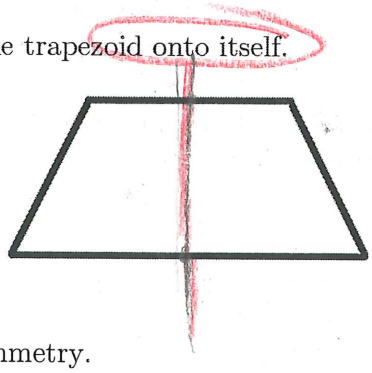
Practice Assessment

1. Given is a regular octagon. After a counterclockwise rotation of 225° about point O, to what point will E be carried onto?



$\frac{360°}{8} = 45°$ per turn $\Rightarrow \frac{225°}{45°} = 5$ ← # of turns → F

2. Draw all lines over which a reflection would carry the trapezoid onto itself.



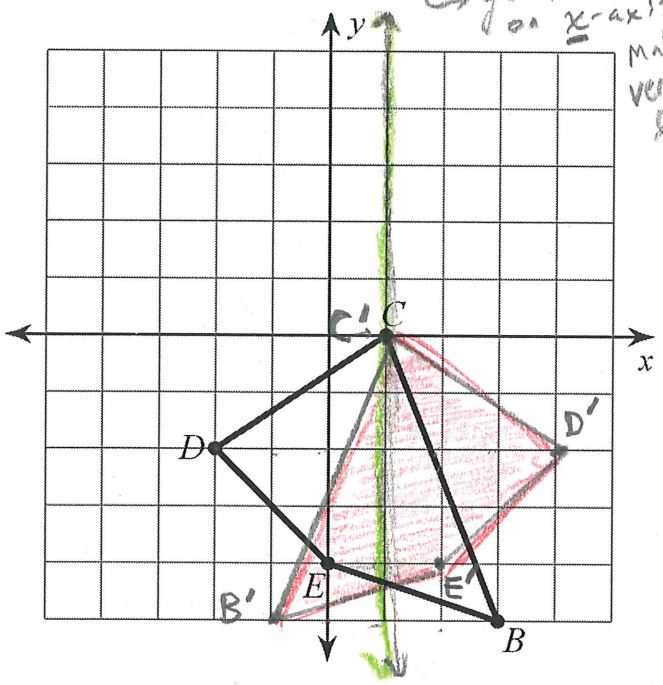
3. Draw a quadrilateral with no lines of reflectional symmetry.

Examples:

CO-A2a

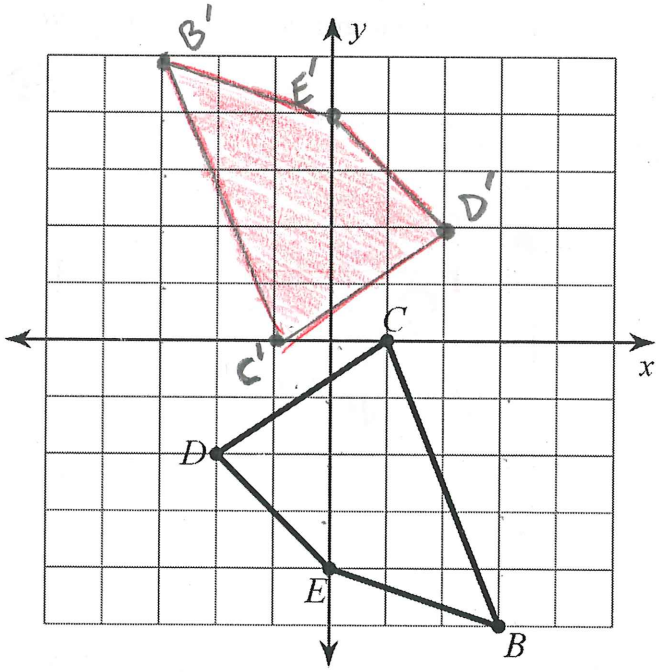
4. Reflect across the line $x = 1$. Label points.

→ go to 1 on x-axis, make vertical line



Count distance (for each vertex) from line of reflection, then go same distance on other side of line. [Note that C is on the line.]

5. Rotate 180° about the origin. Label points.



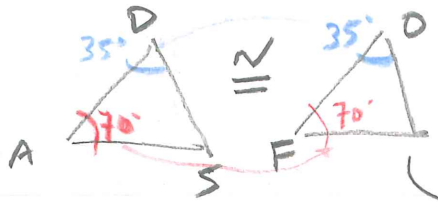
- Rule? (or) $(x, y) \rightarrow (-x, -y)$
- Rotate Paper, count, turn back, plot.

B: (3, -5) $(-x, -y)$ (-3, 5) B'
C: (1, 0) ⇒ (-1, 0) C'
D: (-2, -2) (2, 2) D'
E: (0, -4) (0, 4) E'

CO-B7a

Draw & Label Consistently. order matters

6. Given $\Delta ADS \cong \Delta FOL$. $\angle A = 70°, \angle O = 35°$. Find the measure of $\angle L$.

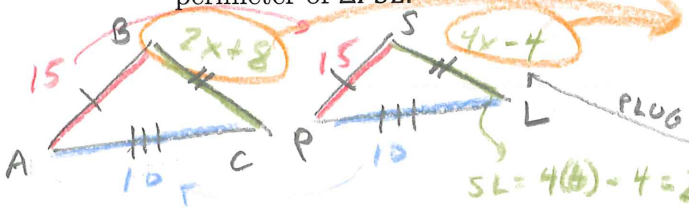


- $\angle A \cong \angle F$
- $\angle D \cong \angle O$
- $\angle S \cong \angle L$?

RECALL All Δ's angles add up to 180°

$180 - 70 - 35 = 75°$

7. Given $\Delta ABC \cong \Delta PSL$, AB=15, SL=$4x-4$, PL = 10, and BC=$2x+8$. Find the value of x and find the perimeter of ΔPSL.



$BC \cong SL \Rightarrow 2x+8 = 4x-4$

$-2x \quad -2x$

$8 = 2x - 4$

$+4 \quad +4$

$\frac{12}{2} = \frac{2x}{2}$

$x = 6$

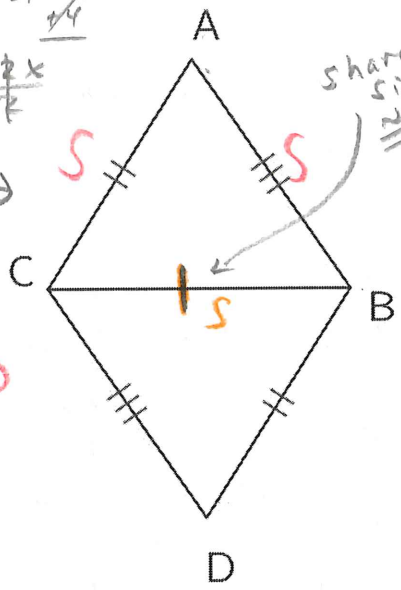
PLUG IN

$SL = 4(6) - 4 = 20$

Perimeter: $15 + 10 + 20 = 45$

CO-B8a

8. Which criteria can show these two triangles are congruent? SSS



shared side ≅ to itself.

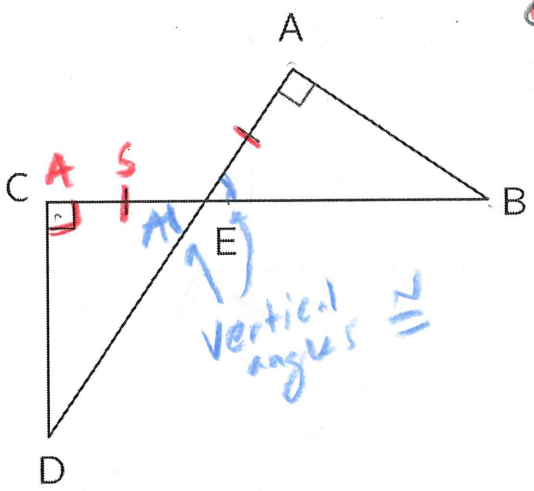
9. Complete the congruence statement: $\Delta ABC \cong \Delta$___

order matters DCB

10. Which criteria can show these two triangles are congruent? ASA

11. Complete the congruence statement: $\Delta ABE \cong \Delta$___

ΔCDE

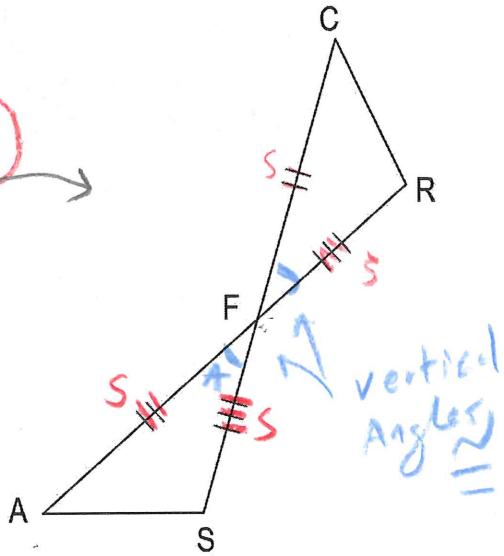


vertical angles ≅

12. Which criteria can show these two triangles are congruent? SAS

13. Complete the congruence statement: $\Delta FAS \cong \Delta$___

ΔFCR



vertical Angles ≅