Solutions

MOHYUDDIN

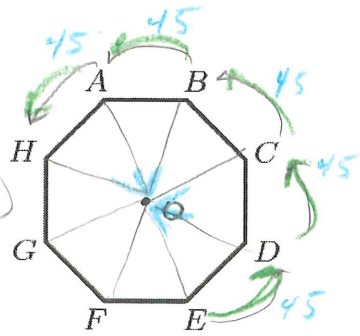
CO-A3b

Practice Assessment

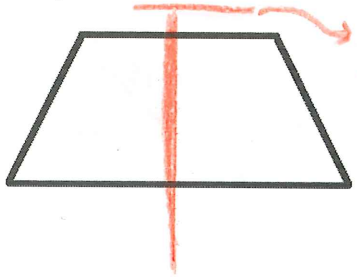
1. Given is a regular octagon. After a counterclockwise rotation of 225° about point O, to what point will E be carried onto?

$\frac{360°}{8} = 45°$ (each turn) → $\frac{225°}{45°} = 5$ (# of turns)

H



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



line of reflectional symmetry.

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

4-sided figure

other possibilities:

CO-A5b

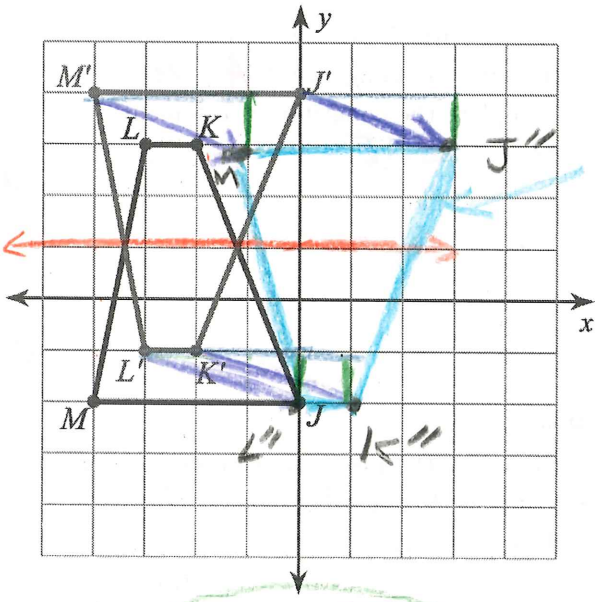
4. Write the equation of the line of reflection.

Horizontal lines: $y = \#$
Vertical lines: $x = \#$

$y = 1$

5. Translate J'K'L'M' along vector $< 3, -1 >$.

right 3, down 1



#5 answer

CO-B6b

6. Which of the following transformations would carry ΔADC onto ΔCBA? Mark ALL that apply.

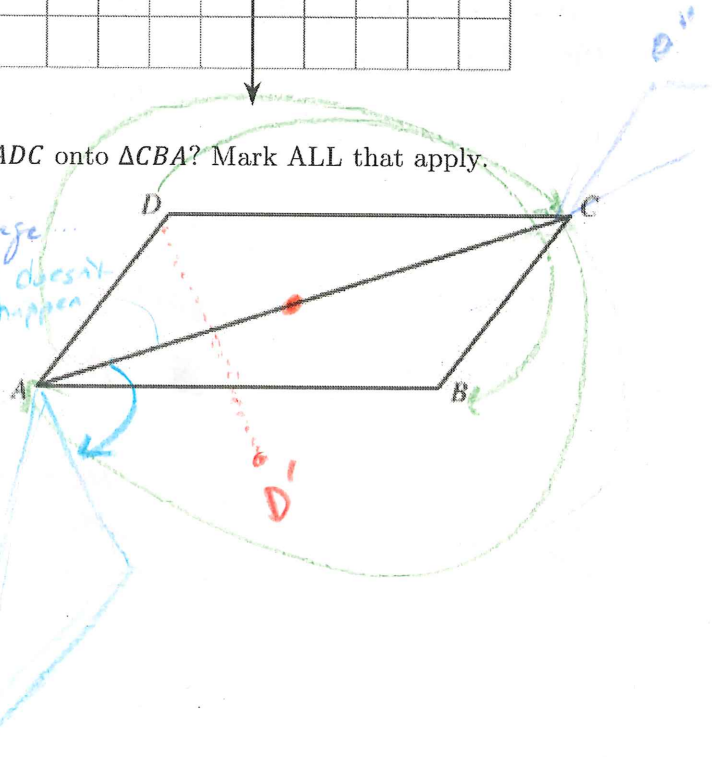
[ ] Reflection across $\overline{AC}$ • Nope, see D'

[ ] Translation along $\overrightarrow{AC}$ • Nope, slides off page...

[ ] Rotation clockwise around point A • No, A → C doesn't happen

[ ] Rotation clockwise around midpoint of $\overline{AC}$

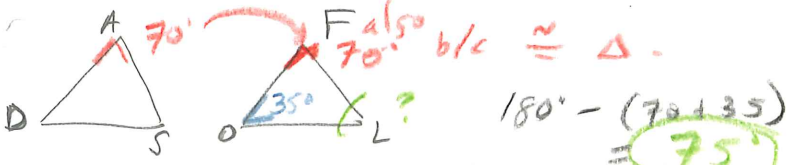
Yes!
A → C
D → B
C → A.



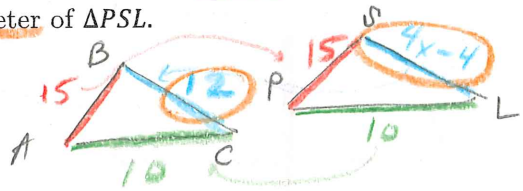
CO-B7a

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

Draw, then label in matching order.



8. Given $\Delta ABC \cong \Delta PSL$, AB=15, SL=4x-4, PL = 10, and BC=12. Find the value of x and find the perimeter of ΔPSL.



$4x - 4 = 12$
$+4 \quad +4$
$4x = 16$
$4 \quad 4$
$x = 4$

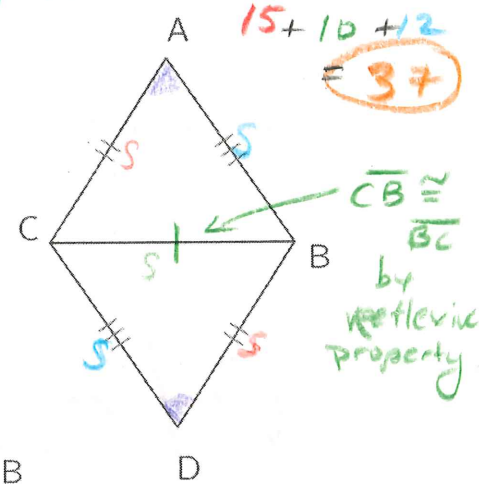
$4(4) - 4 = 12$
$SL = 12$
Perimeter of PSL:
$15 + 10 + 12 = 37$

SSS

CO-B8a

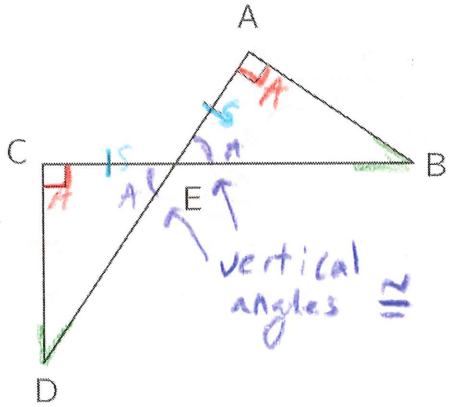
9. Which criteria can show these two triangles are congruent?
10. Complete the congruence statement: $\Delta ABC \cong \Delta DCB$

Order matters!!



11. Which criteria can show these two triangles are congruent? ASA
12. Complete the congruence statement: $\Delta ABE \cong \Delta CDE$

follow the order/structure.



SRT-B5a

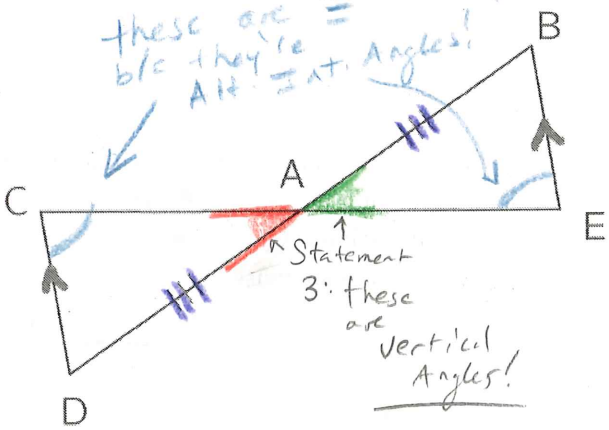
13. Complete the proof using the statements and reasons provided. Not all can nor will be used.

GIVEN: $\overline{CD} \parallel \overline{EB}$, $\overline{DA} \cong \overline{BA}$

PROVE: $\Delta ACD \cong \Delta AEB$

Statements	Reasons
1. $\overline{CD} \parallel \overline{EB}$, $\overline{DA} \cong \overline{BA}$	1. Given (Always begin with Given)
2. $\angle C \cong \angle E$	2. Alternate Int. $\angle$'s
3. $\angle DAC \cong \angle BAE$	3. Vertical Angles
4. $\Delta ACD \cong \Delta AEB$	4. ~~SSS~~ AAS oops!

these are ≅ b/c they're Alt. Int. Angles!



Choices:

SSS	SAS	AAS	~~SSA~~ NEVER	Given	Vertical Angles	Alternate Interior Angles
~~Prove~~ NEVER	$\angle C \cong \angle E$		$\overline{CD} \cong \overline{EB}$ Assumption... Not even once!	Reflexive Property		$\overline{CA} \cong \overline{EA}$? Assumption... bad idea!