1. Given is a regular octagon. After a counterclockwise rotation of $225^{\circ}$ about point O , to what point will E be carried onto?
2. Draw all lines over which a reflection would carry the trapezoid onto itself.

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

CO-A5b
4. Write the equation of the line of reflection.
5. Translate J'K'L'M' along vector $\langle 3,-1\rangle$.


## CO-B6b

6. Which of the following transformations would carry $\triangle A D C$ onto $\triangle C B A$ ? Mark ALL that apply.
[ ] Reflection across $\overline{A C}$
[ ] Translation along $\overrightarrow{A C}$
[ ] Rotation clockwise around point A
[ ] Rotation clockwise around midpoint of $\overline{A C}$

7. Given $\triangle A D S \cong \triangle F O L . \angle A=70^{\circ}, \angle O=35^{\circ}$. Find the measure of $\angle L$.
8. Given $\triangle A B C \cong \triangle P S L, \mathrm{AB}=15, \mathrm{SL}=4 \mathrm{x}-4, \mathrm{PL}=10$, and $\mathrm{BC}=12$. Find the value of $x$ and find the perimeter of $\triangle P S L$.

## CO-B8a

9. Which criteria can show these two triangles are congruent?
10. Complete the congruence statement: $\triangle A B C \cong \Delta$ $\qquad$
11. Which criteria can show these two triangles are congruent?
12. Complete the congruence statement:
$\triangle A B E \cong \Delta_{\text {___ }}$


## SRT-B5a

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

GIVEN: $\overline{C D} \| \overline{E B}, \overline{D A} \cong \overline{B A}$
PROVE: $\triangle A C D \cong \triangle A E B$
Statements

1. $\overline{C D} \| \overline{E B}, \overline{D A} \cong \overline{B A}$
2. 
3. $\angle D A C \cong \angle B A E$
4. $\triangle A C D \cong \triangle A E B$

Reasons
1.
2.
3.
4.
4.


Choices:

| SSS | SAS $\quad$ AAS | SSA | Given | Vertical Angles | Alternate Interior Angles |
| :--- | :--- | :---: | :---: | :---: | :---: |
| Prove | $\angle C \cong \angle E$ | $\overline{C D} \cong \overline{E B}$ |  | Reflexive Property | $\overline{C A} \cong \overline{E A}$ |

