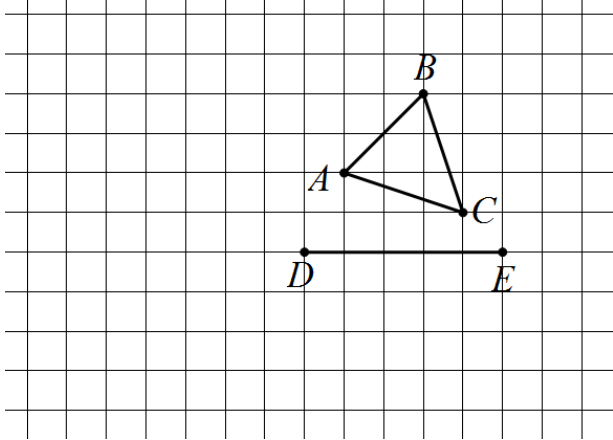
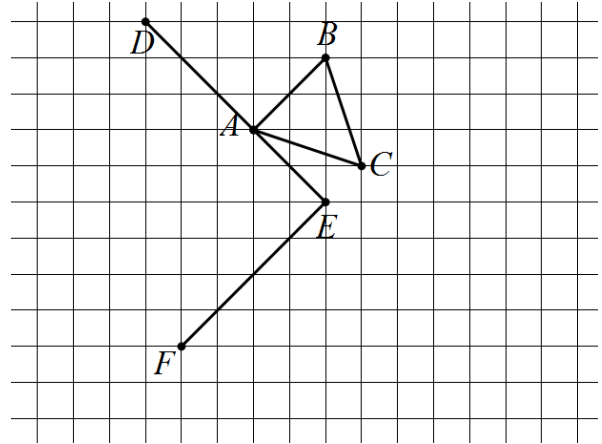


1. Graph and label the image of $\triangle ABC$ under each sequence of rigid motions.

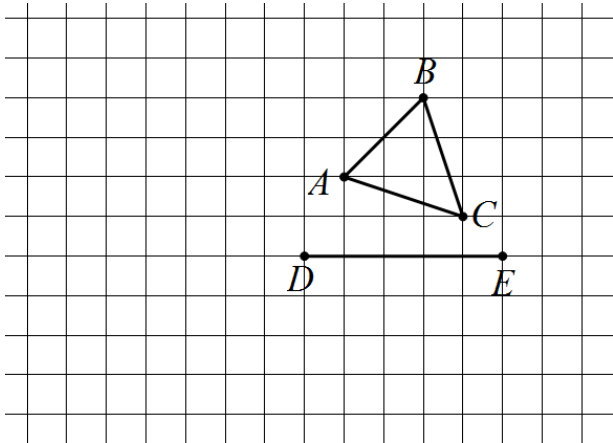
a. $R_{D,270^\circ} \circ r_{\overline{ED}}$



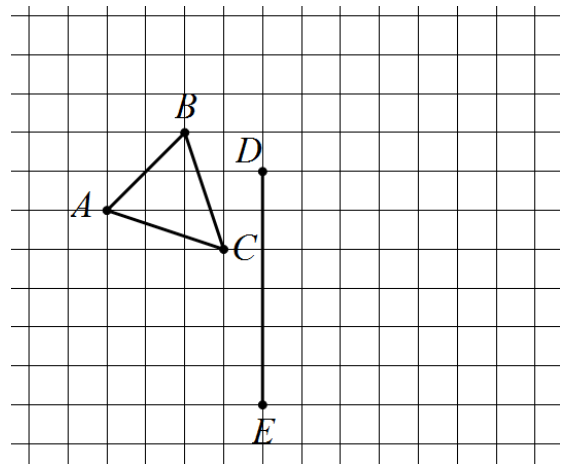
b. $r_{\overline{FE}} \circ r_{\overline{ED}}$



c. $T_{\overline{ED}} \circ r_{\overline{ED}}$



d. $R_{D,-90^\circ} \circ R_{D,180^\circ}$



2. For each sequence of rigid motions in #1, precisely describe a single rigid motion that results in the same transformation. Write your answers on the lines below. If a single rigid motion does not exist, write "Not Possible".

1a. _____

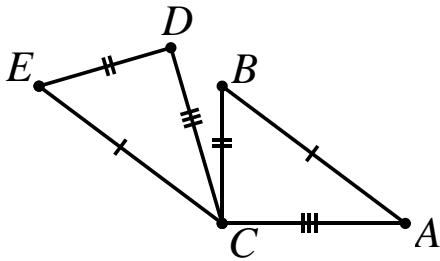
1c. _____

1b. _____

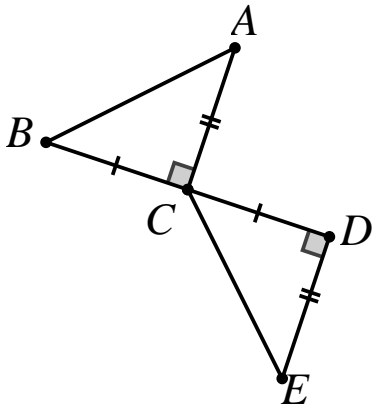
1d. _____

3. Choose one transformation from #1 and explain why it is or is not an Isometry.

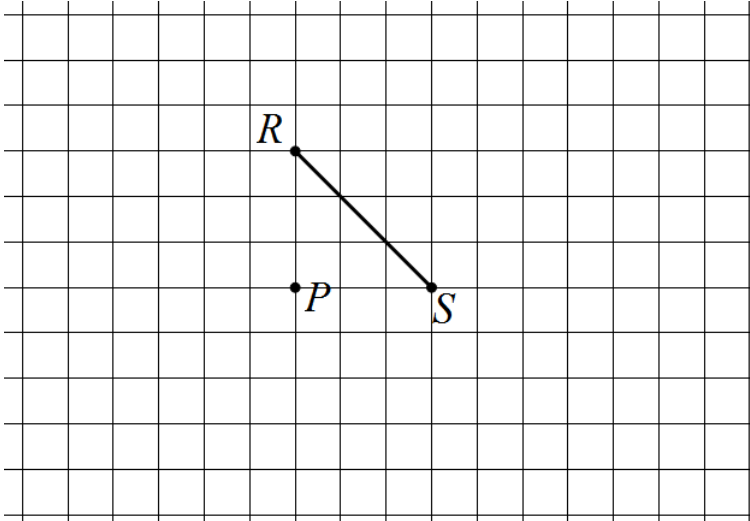
4. Precisely describe a sequence of rigid motions that maps $\triangle ABC$ onto $\triangle CDE$.
 Sketch the resulting triangle for each rigid motion in the sequence.



5. Precisely describe a sequence of rigid motions that maps $\triangle ABC$ onto $\triangle ECD$.
 Sketch the resulting triangle for each rigid motion in the sequence.

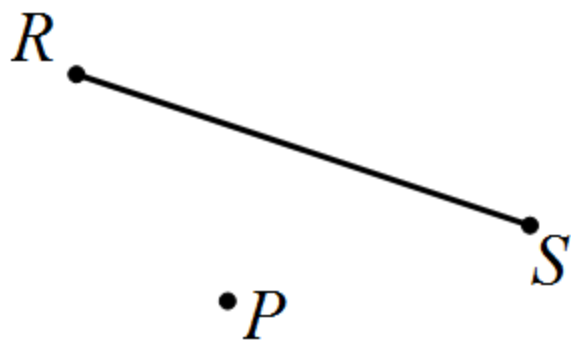


5. Point P is the **image** of points A, B, C, D, and E under each of the following transformations.
 Graph and label the points A, B, C, D, and E. (Mixed Review)



- P is the image of A under $R_{R,180^\circ}$
- P is the image of B under $r_{\overline{RS}}$
- P is the image of C under $T_{\langle 3,-5 \rangle}$
- P is the image of D under $D_{R,1/3}$
- P is the image of E under $T_{\overline{SR}}$

6. Use a compass and straight edge to reflect P over \overline{RS} . (*mixed review*)



7. Use a compass and protractor to rotate \overline{RS} 135 degrees counter-clockwise around P . (*mixed review*)

