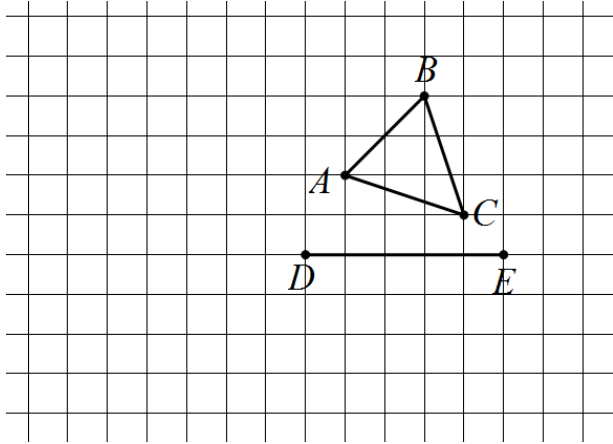
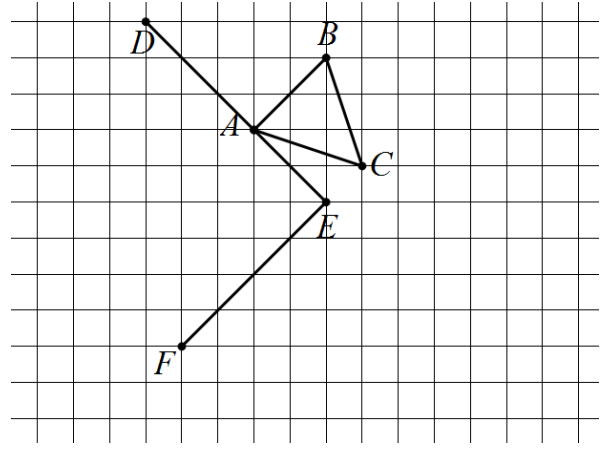


1. Graph and label the image of  $\triangle ABC$  under each sequence of rigid motions.

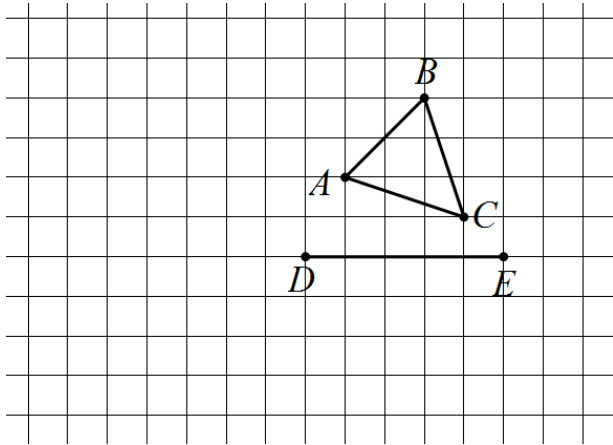
a.  $R_{D,270^\circ} \circ r_{\overline{ED}}$



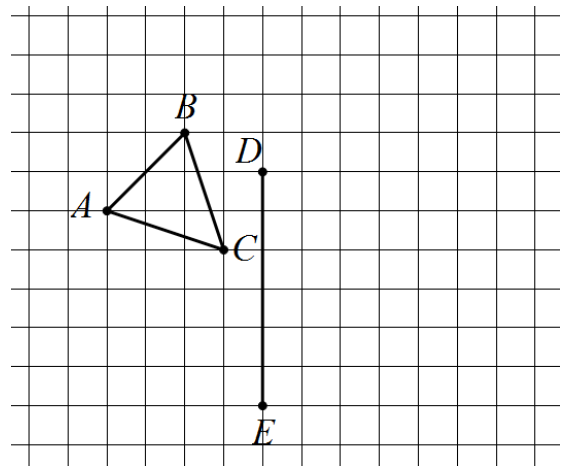
b.  $r_{\overline{FE}} \circ r_{\overline{ED}}$



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. \_\_\_\_\_

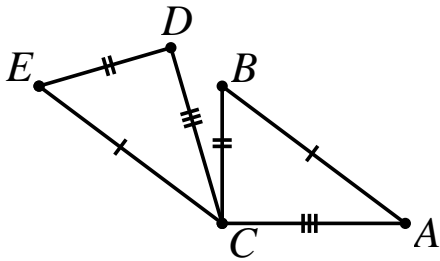
1c. \_\_\_\_\_

1b. \_\_\_\_\_

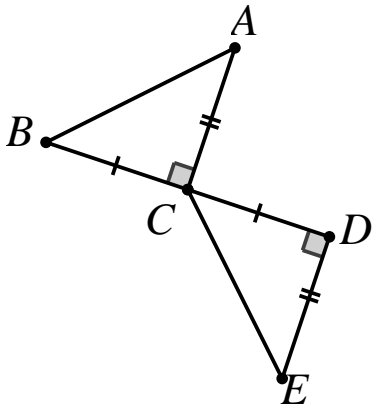
1d. \_\_\_\_\_

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

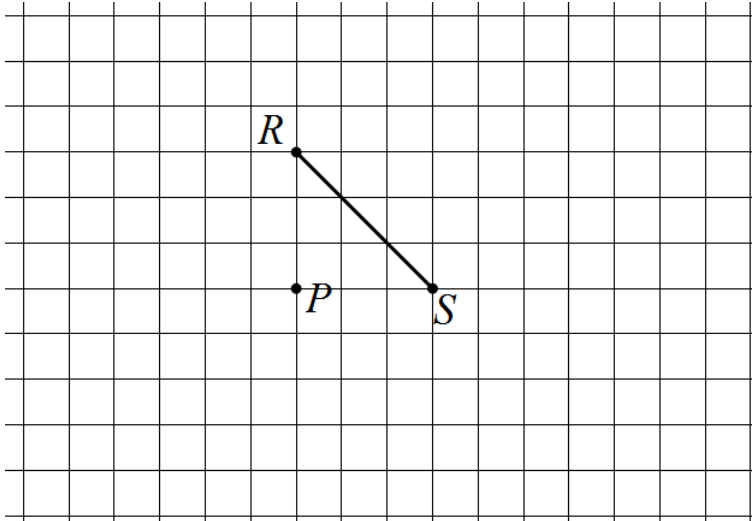
4. Precisely describe a sequence of rigid motions that maps  $\triangle ABC$  onto  $\triangle CDE$ .  
 Sketch the resulting triangle for each rigid motion in the sequence.



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.

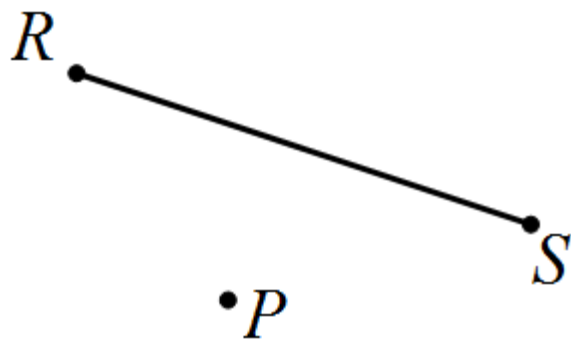


5. Point P is the **image** of points A, B, C, D, and E under each of the following transformations.  
 Graph and label the points A, B, C, D, and E. (Mixed Review)



- a. P is the image of A under  $R_{R,180^\circ}$
- b. P is the image of B under  $r_{\overline{RS}}$
- c. P is the image of C under  $T_{\langle 3, -5 \rangle}$
- d. P is the image of D under  $D_{R,1/3}$
- e. 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*)

