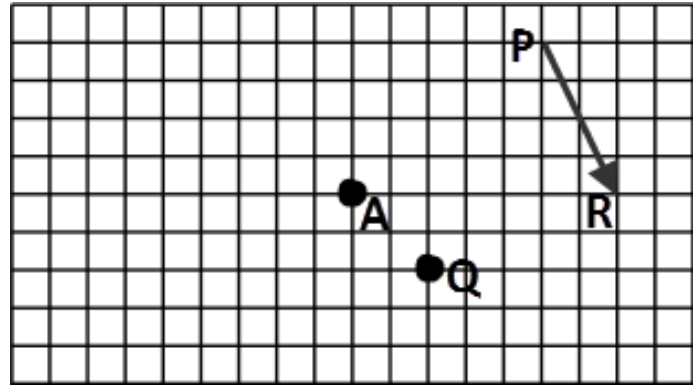
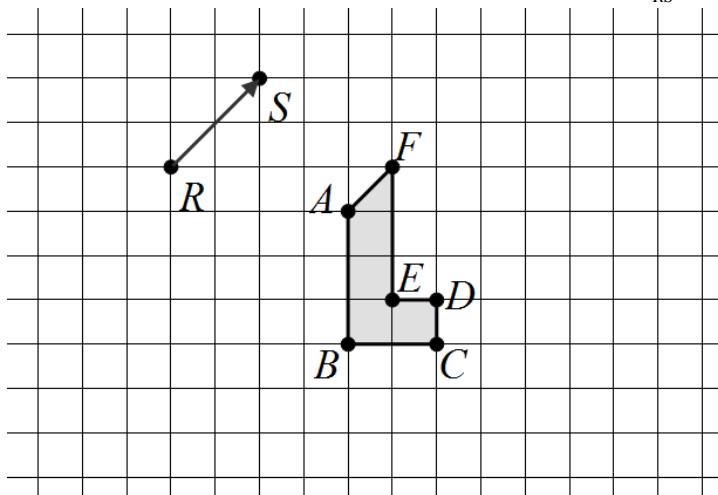


1. On the grid, graph and label the image of point A under each transformation:

- Translate down 2, left 4. (label B)
- Translate along vector \overrightarrow{PR} . (label C)
- Dilate about Q by a factor of 3. (label D)
- $T_{\langle -3, 2 \rangle}$ (label E)
- $D_{P, 2}$ (label F)

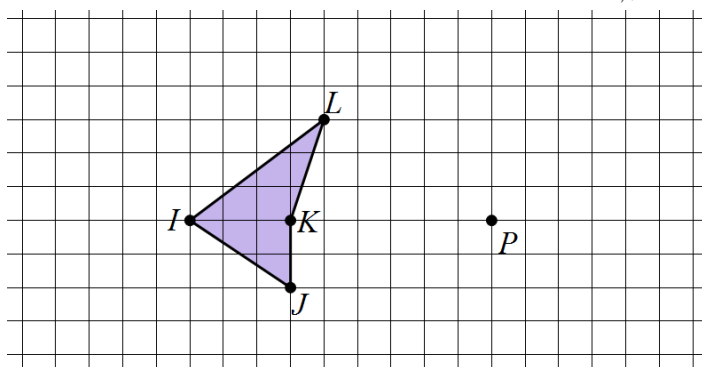


2a. Graph and label the image of ABCDEF under $T_{\overline{RS}}$ and label its image A'B'C'D'E'F'.



b. What conclusion can be made about $m\angle AFE$ and $m\angle A'F'E'$? Explain your reasoning.

3a. Graph and label the image of IJKL under $D_{P, 1/2}$.



b. What conclusion can be made about $m\angle LIJ$ and $m\angle L'I'J'$? Explain your reasoning.

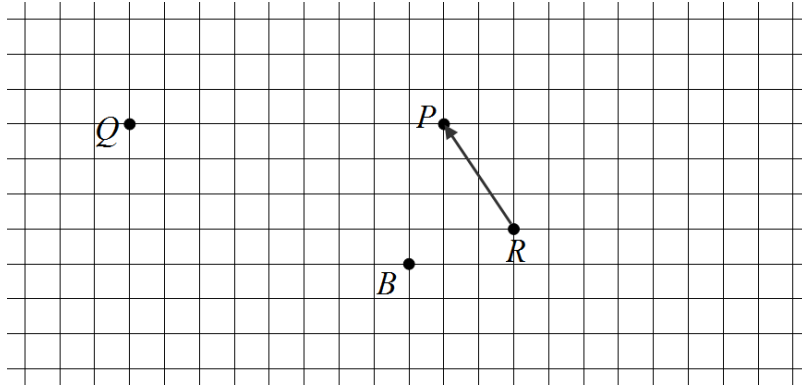
4. Point B is the **image** of points C,D,E, and F under each transformation. Graph and label each pre-image point.

a. C is translated along the vector $\langle 3, -2 \rangle$.

b. D is transformed under $T_{\overline{RP}}$.

c. E is dilated about Q by a factor of 4.

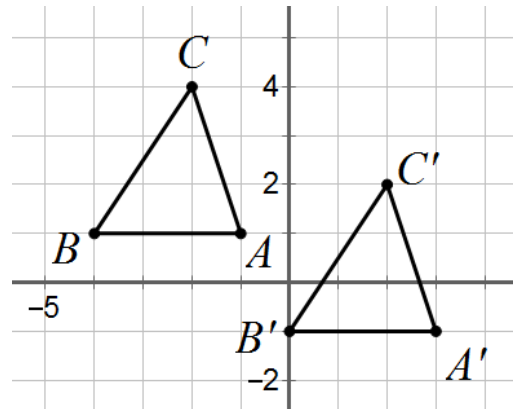
d. F is transformed under $D_{R,1/2}$.



5.

a. Precisely describe a transformation that would map $\triangle ABC$ onto $\triangle A'B'C'$.

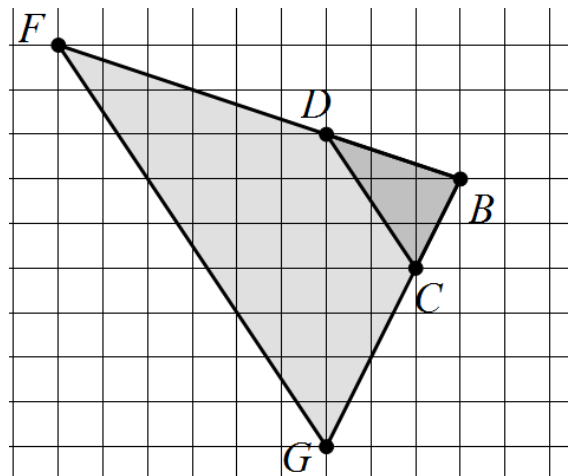
b. Is the transformation you described above a Rigid Motion? Explain.



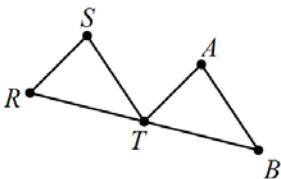
6.

a. Precisely describe a transformation that would map $\triangle DBC$ onto $\triangle FBG$.

b. Is the transformation you described above a Rigid Motion? Explain.



7. Precisely describe the translation that would map $\triangle RST$ onto $\triangle TAB$.



8. The line $y = \frac{4}{3}x + 2$ is dilated by a factor of 5 with respect to the origin. Write the equation of the resulting image.

9. The line $y = -5x - 14$ is dilated by a factor of $\frac{1}{2}$ with respect to the origin. Write the equation of the resulting image.