

Name:

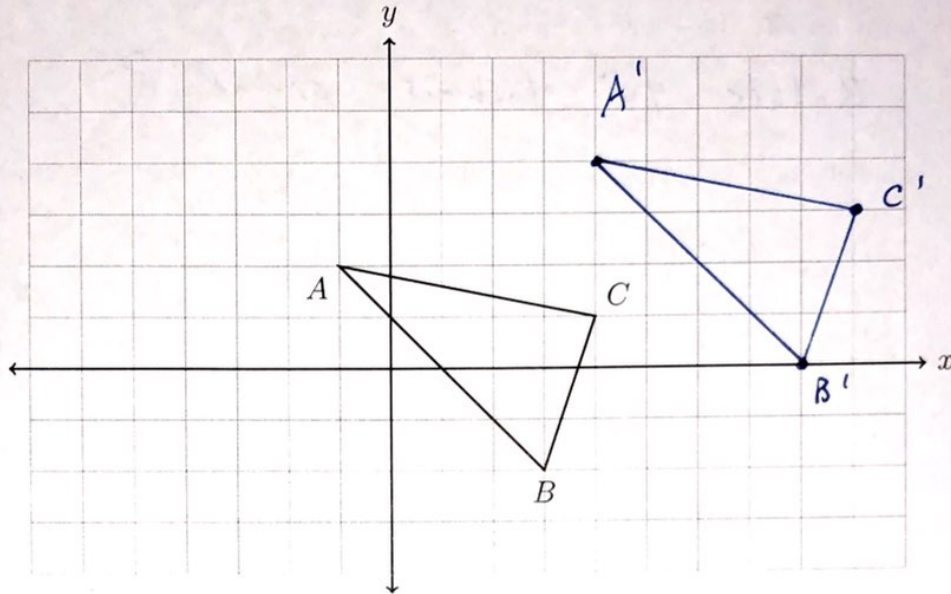
SOLUTIONS

BECA / Dr. Huson / Geometry 5 Congruence Transformations

5.10 Quiz: Mixed congruence transformations

CCSS.HSG.CO.A.5

1. Slide $\triangle ABC$ to the right five and up two. Label the image $\triangle A'B'C'$.

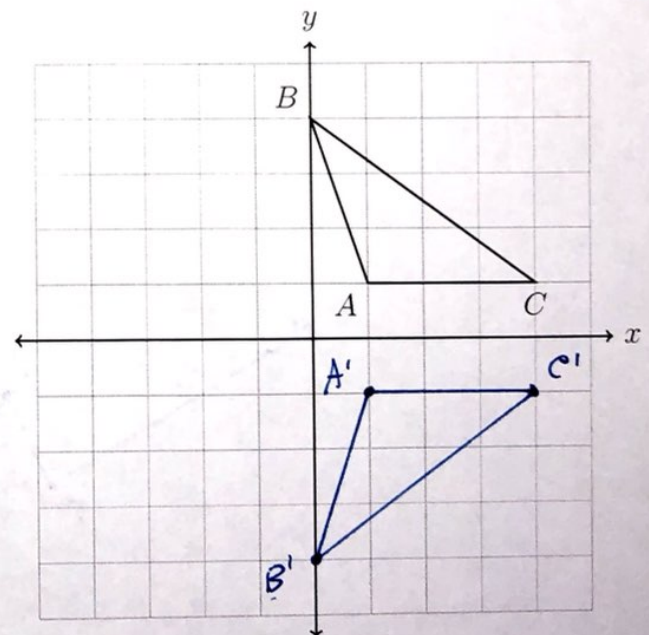


2. Reflect the triangle over the x -axis, $\triangle ABC \rightarrow \triangle A'B'C'$. Complete the table of the coordinates and plot and label the image on the grid.

$$A(1, 1) \rightarrow A'(1, -1)$$

$$B(0, 4) \rightarrow B'(0, -4)$$

$$C(4, 1) \rightarrow C'(4, -1)$$



3. A transformation maps $\triangle TOP \rightarrow \triangle CAP$, shown below.

(a) Fully specify the transformation.

Rotate 90° clockwise around P

(b) Identify each corresponding object.

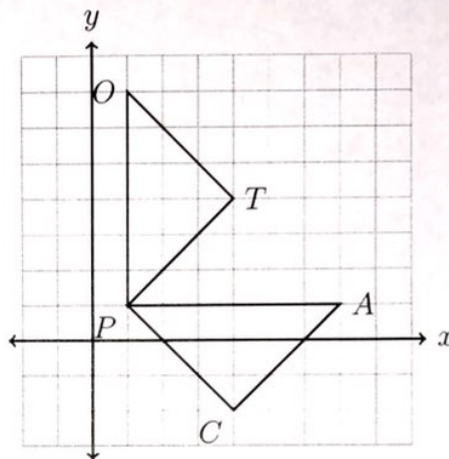
i. $T \rightarrow$ C

ii. $O \rightarrow$ A

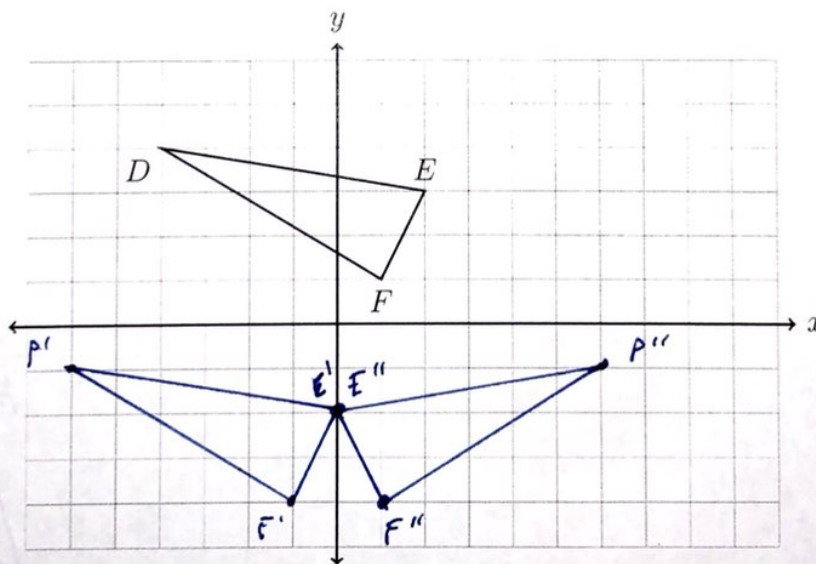
iii. $P \rightarrow$ P

iv. $\angle PTO \cong$ $\angle PCA$

v. \overline{OT} \cong \overline{CA}



4. Translate $\triangle DEF$ by $(x, y) \rightarrow (x - 2, y - 5)$, then reflect the result over the y -axis. Label the images $\triangle D'E'F'$ and $\triangle D''E''F''$ respectively.



5. Check those transformations that are rigid motions.

☒ Reflection

☐ Dilation

☒ Translation

☒ Rotation

☒ An isometry

☐ Horizontal stretch