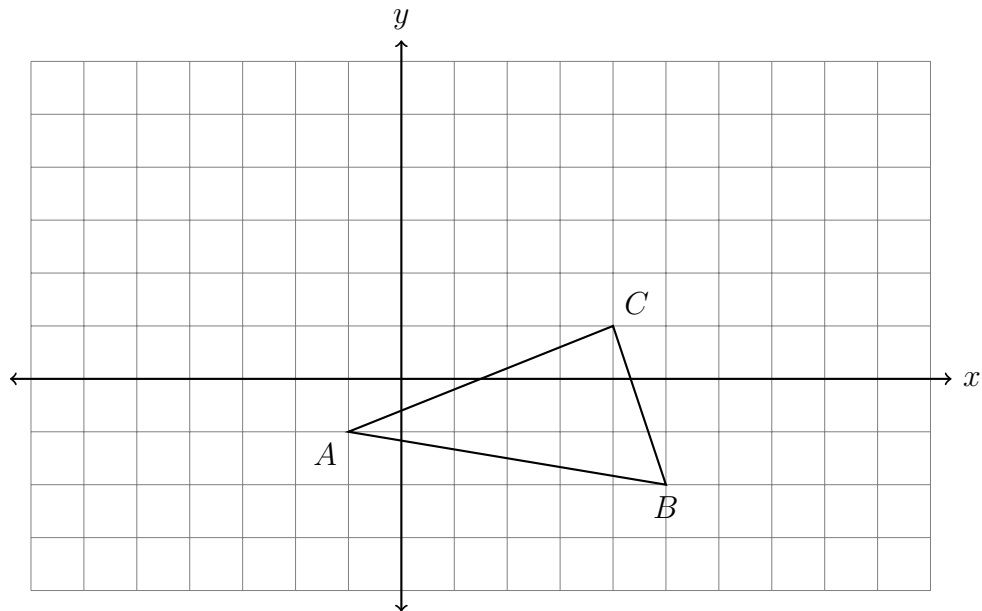


Name:

8.7 Homework: Mixed congruence transformations

CCSS.HSG.CO.A.5

1. Do Now: Slide $\triangle ABC$ to the left three and up four. Label the image $\triangle A'B'C'$.

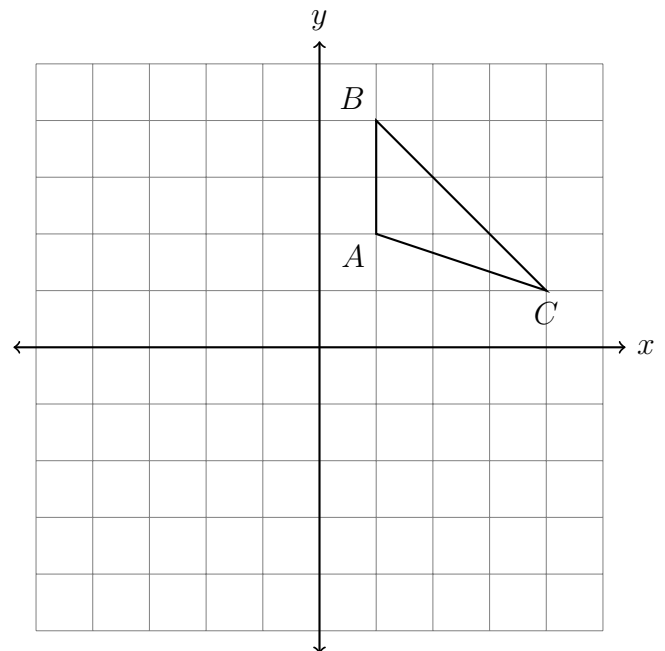


2. Reflect the triangle over the y -axis, $\triangle ABC \rightarrow \triangle A'B'C'$. Complete the table of the coordinates and plot and label the image on the grid.

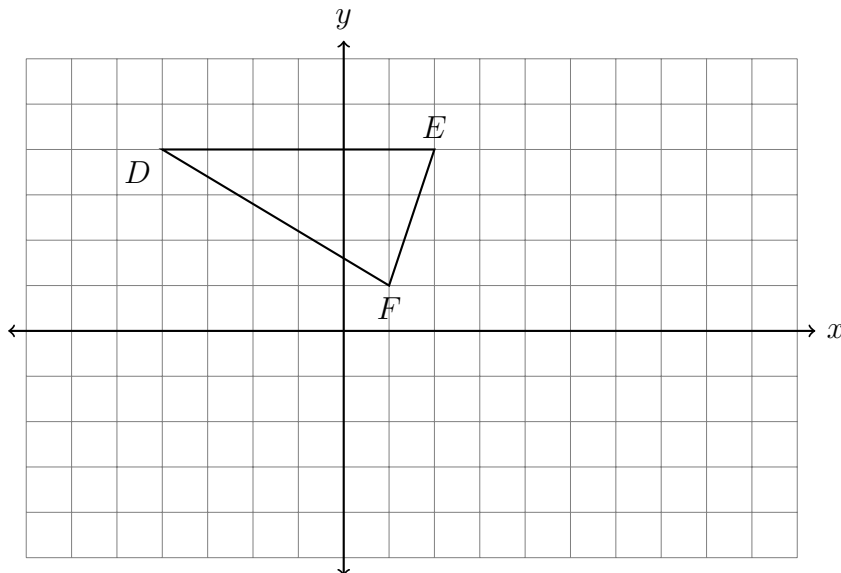
$A(1, 2) \rightarrow$

$B(1, 4) \rightarrow$

$C(4, 1) \rightarrow$



3. Translate $\triangle DEF$ by $(x, y) \rightarrow (x + 5, y - 1)$, then reflect the result over the x -axis. Label the images $\triangle D'E'F'$ and $\triangle D''E''F''$ respectively.

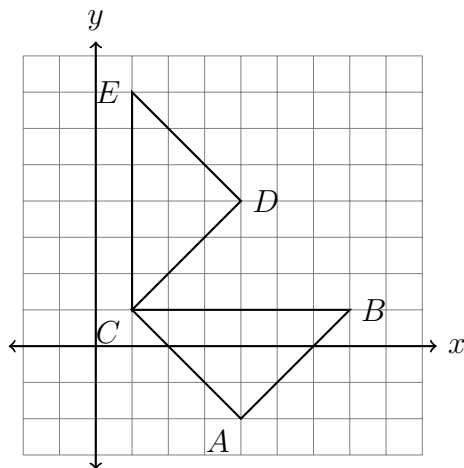


4. A transformation maps $\triangle ABC \rightarrow \triangle DEC$, shown below.

(a) Fully specify the transformation.

(b) Identify each corresponding object.

- i. $A \rightarrow$ _____
- ii. $B \rightarrow$ _____
- iii. $C \rightarrow$ _____
- iv. $\angle ACB \cong$ _____
- v. _____ $\cong \overline{DE}$



5. Check those transformations that are rigid motions.

- | | |
|--------------------------------------|---|
| <input type="checkbox"/> Dilation | <input type="checkbox"/> Rotation |
| <input type="checkbox"/> Translation | <input type="checkbox"/> An isometry |
| <input type="checkbox"/> Reflection | <input type="checkbox"/> Horizontal stretch |