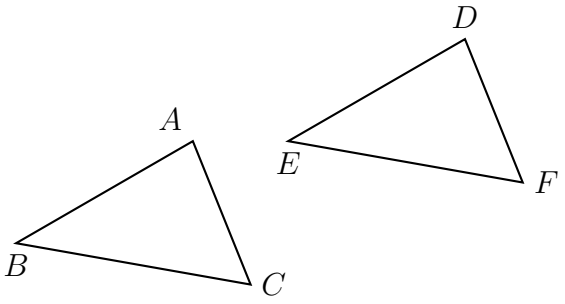
Homework: Transformations practice (due Tuesday)

1. A translation maps triangle ABC onto triangle DEF.



Fill in the blank with the corresponding object.

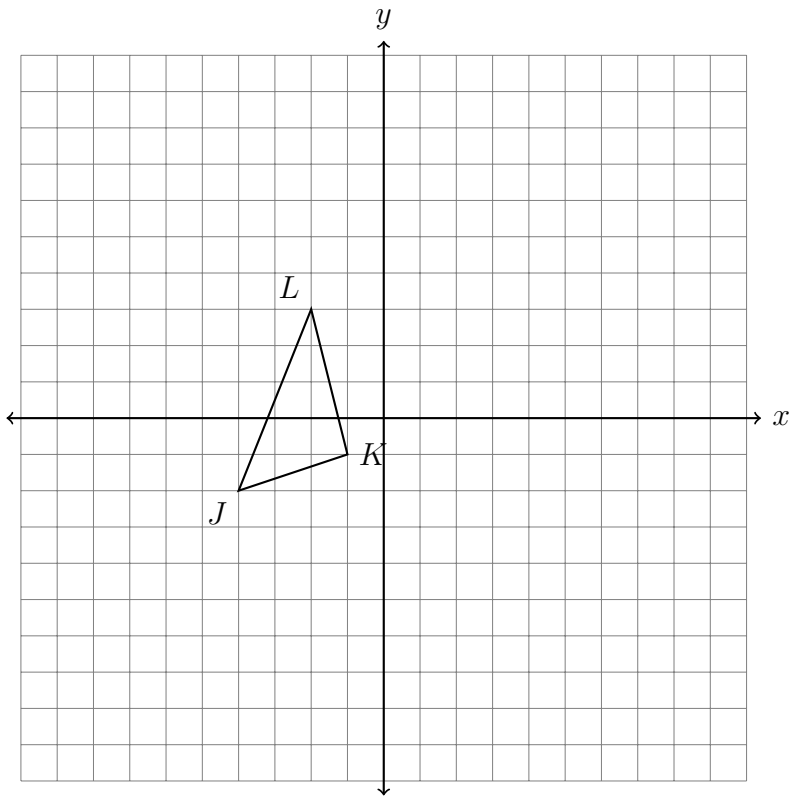
(a) $A \rightarrow$ _____

(b) $\angle ABC \cong$ _____

(c) _____ $\cong \overline{EF}$

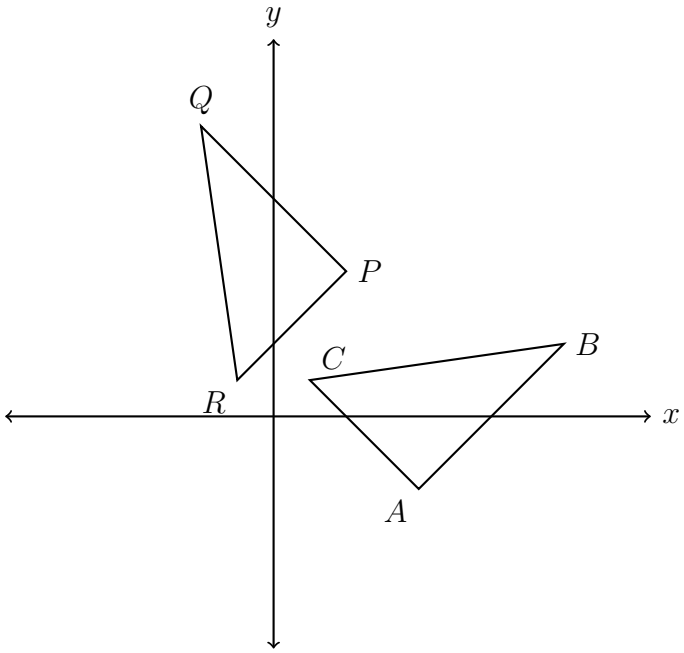
2. The vertices of $\triangle JKL$ have the coordinates $J(-4,-2)$, $K(-1,-1)$, and $L(-2,3)$, as shown below.

Apply a translation of $(x,y) \rightarrow (x+7, y+4)$ to $\triangle JKL$ and then reflect the image across the x-axis. Draw both images $\triangle J'K'L'$ and $\triangle J''K''L''$ on the set of axes below, labeling the vertices.



3. A rotation of 90° is applied to $\triangle ABC$, mapping it onto $\triangle PQR$, as shown.

   Which triangle has the larger area, or are they equal? Justify your answer.



4. The trapezoid $MATH$, shown below, undergoes two rigid motions carrying it onto trapezoid $COMP$. State the two isometric transformations. (there is more than one correct answer)