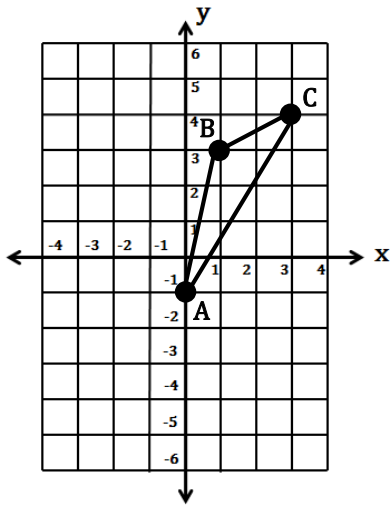


## Transformations (Motion Geometry)

- 1) Translate
- $\triangle ABC$
- 3 units left.



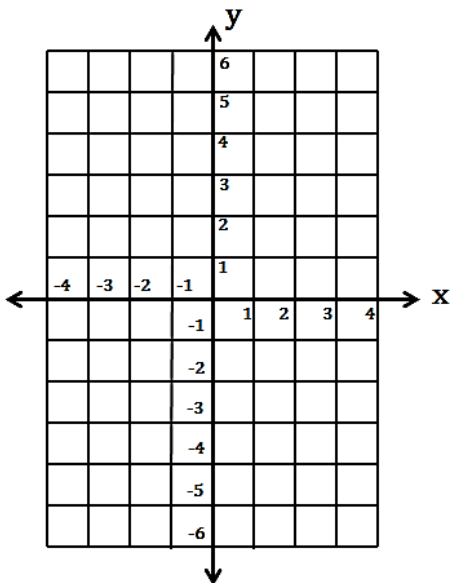
Record the original coordinates of  $\triangle ABC$  as well as the coordinates of the translated  $\triangle A'B'C'$

$$A( \quad , \quad ), B( \quad , \quad ), C( \quad , \quad )$$

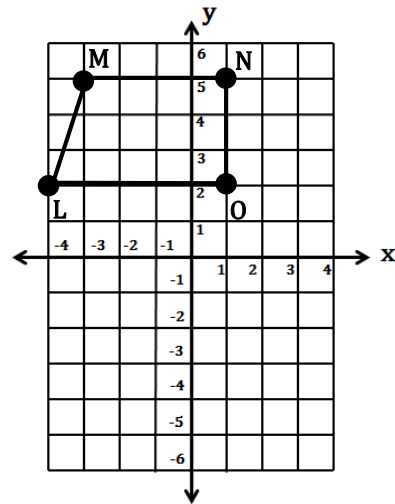
$$A'( \quad , \quad ), B'( \quad , \quad ), C'( \quad , \quad )$$

- 3) Graph  $\triangle DEF$  with vertices  $D(-3, -5)$ ,  $E(0, -1)$ ,  $F(3, -1)$ . Then, graph its reflection across the **x-axis**. Find the coordinates of the reflected image.

$$D'( \quad , \quad ), E'( \quad , \quad ), F'( \quad , \quad )$$



- 2) Translate trapezoid LMNO 2 units right and 5 units down.



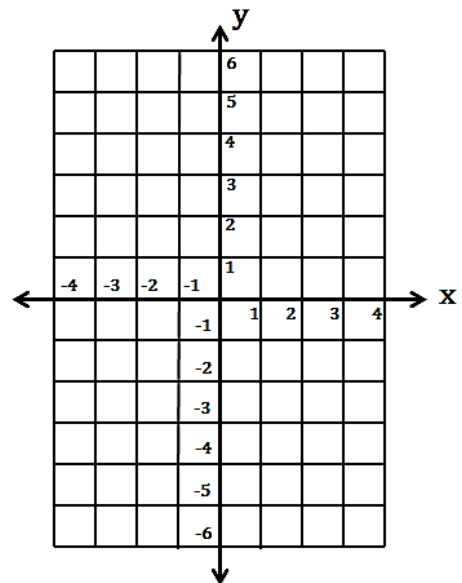
Record the original coordinates of trapezoid LMNO as well as the coordinates of the translated trapezoid  $L'M'N'O'$

$$L( \quad , \quad ), M( \quad , \quad ), N( \quad , \quad ), O( \quad , \quad )$$

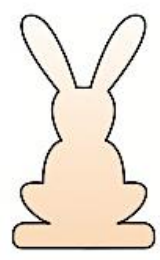
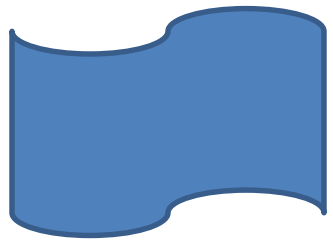
$$L'( \quad , \quad ), M'( \quad , \quad ), N'( \quad , \quad ), O'( \quad , \quad )$$

- 4) Graph trapezoid WXYZ with vertices  $W(-1, 3)$ ,  $X(-1, -4)$ ,  $Y(-4, -4)$ ,  $Z(-3, 3)$ . Then, graph its reflection across the **y-axis**. Find the coordinates of the reflected image.

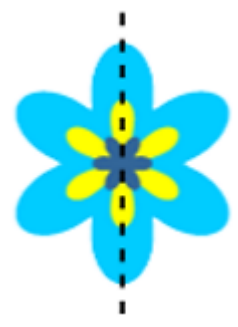
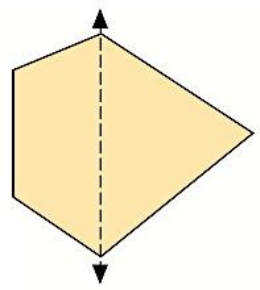
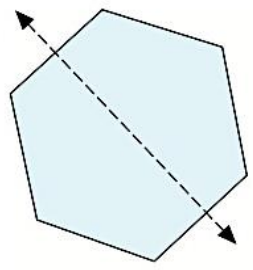
$$W'( \quad , \quad ), X'( \quad , \quad ), Y'( \quad , \quad ), Z'( \quad , \quad )$$



5) Draw all possible lines of symmetry for the pictures below.



6) Are each of the dashed lines in the pictures below a line of symmetry? Answer yes or no for each one.



7) Determine which of the lettered figures on the right are translations of the blue shaded figure. Then, describe each one of these translations. (Example: 5 right, 2 up)

