## M.C. Escher

M. C. Escher was a Dutch graphic artist. He is known for his often mathematically inspired tessellation drawings. M. C. Escher started his drawings using transformations. There are three basic transformations: reflections, translations and rotation. On the grid below is $\triangle \mathrm{ABC}$.


1. Draw an image of $\triangle \mathrm{ABC}$ reflected across the y -axis on the coordinate grid above.
2. What are the coordinates of the vertices of the new reflected image?
3. Draw an image of the original $\triangle \mathrm{ABC}$ rotated $90^{\circ}$ counter-clockwise about the origin on the same coordinate grid.
4. What are the coordinates of the vertices of the new rotated image?
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5. Draw an image of the original $\triangle \mathrm{ABC}$ translated $(6,-9)$ on the same coordinate grid.

What are the coordinates of the new translated image?
6. This is an M.C. Escher drawing.


What transformation is used to create the drawing?

Explain how you know.
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