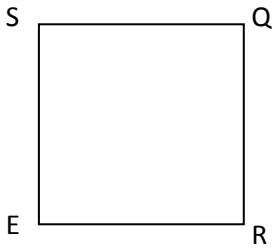
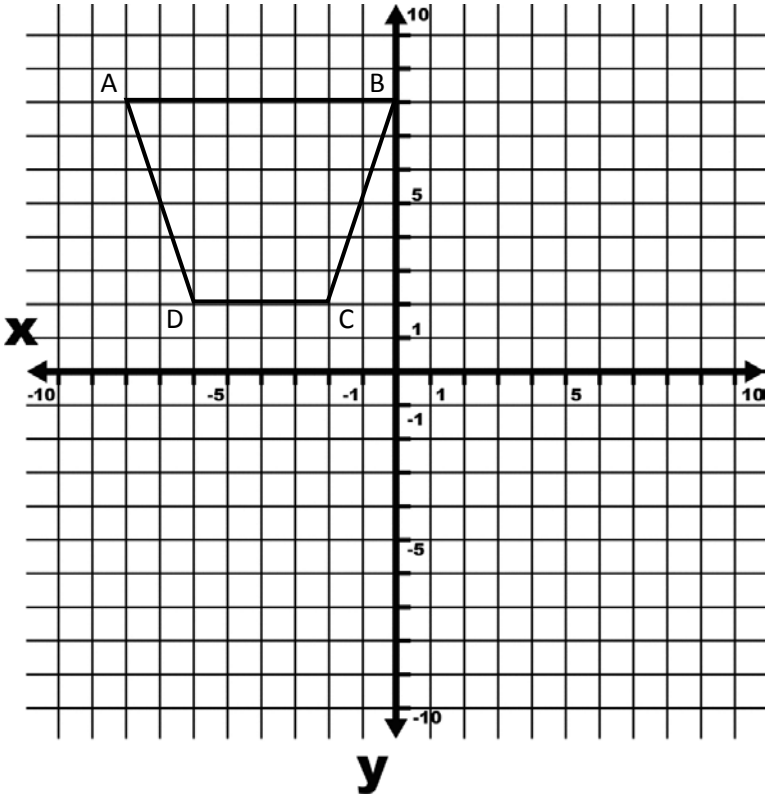
Geometry – G.CO.5 – Introduction and Exploration

1. Suppose that SQRE is a square. Let's suppose that the square is rotated clockwise about R.
    a. Put the image after a 90 degree rotation in red.
    b. Put the image after a 180 degree rotation in green.
    c. Put the image after a 270 degree rotation in blue.
    d. Put the image after a 360 degree rotation in orange.



2. Are there any of the above rotations that "carry the figure onto itself" (meaning that the figure is exactly the way it started)? Explain in at least two sentences.

3.



a. Reflect ABCD over the x-axis. Put image A'B'C'D' in blue.
b. Reflect ABCD over the y-axis. Put image A''B''C''D'' in red.
c. Reflect ABCD over the line x = -4. Put image A'''B'''C'''D''' in green.
d. Reflect ABCD over the line y = 3. Put image A''''B''''C''''D'''' in orange.

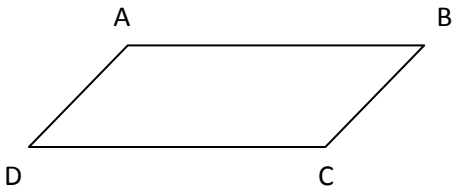
Label your vertices, puh-lease!

4. Are there any of the above reflections that "carry the figure onto itself" (meaning that the figure is exactly the way it started)? Explain in at least two sentences.

5.

a. Translate ABCD along the following vector. Draw A’B’C’D’ in blue.

b. Translate ABCD along the following vector. Draw A’’B’’C’’D’’ in green.



6. Were there any translations that “carry the figure onto itself” (meaning that the figure is exactly the way it started)? Explain in at least two sentences.