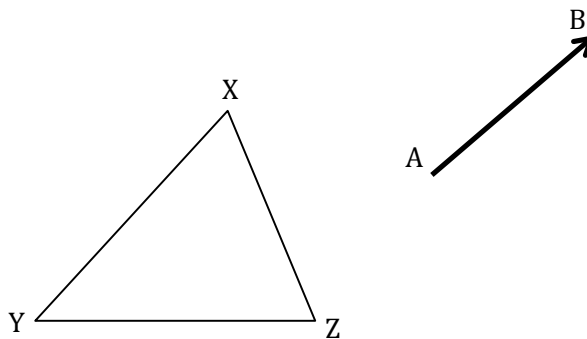


Name \_\_\_\_\_

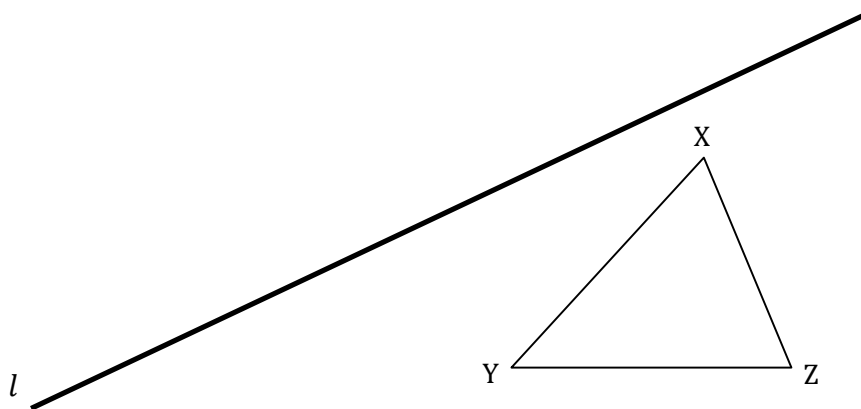
Date \_\_\_\_\_

1.

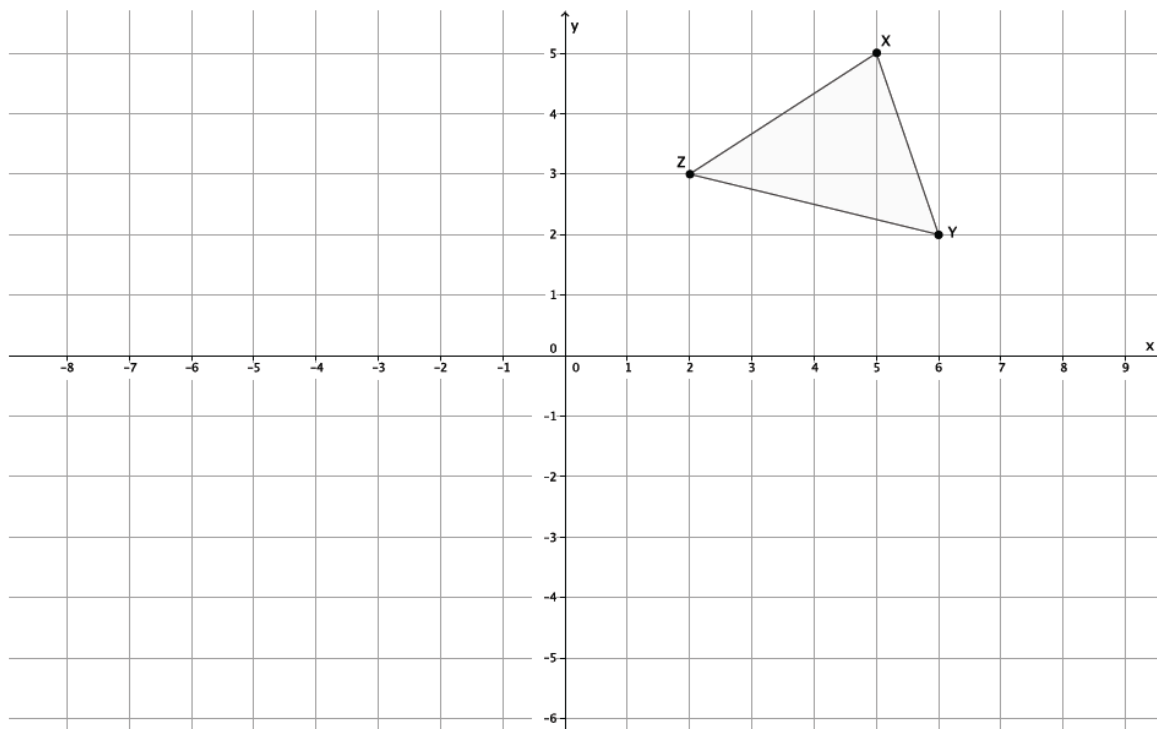
- a. Translate  $\triangle XYZ$  along  $\vec{AB}$ . Label the image of the triangle with  $X'$ ,  $Y'$ , and  $Z'$ .



- b. Reflect  $\triangle XYZ$  across the line of reflection,  $l$ . Label the image of the triangle with  $X'$ ,  $Y'$ , and  $Z'$ .

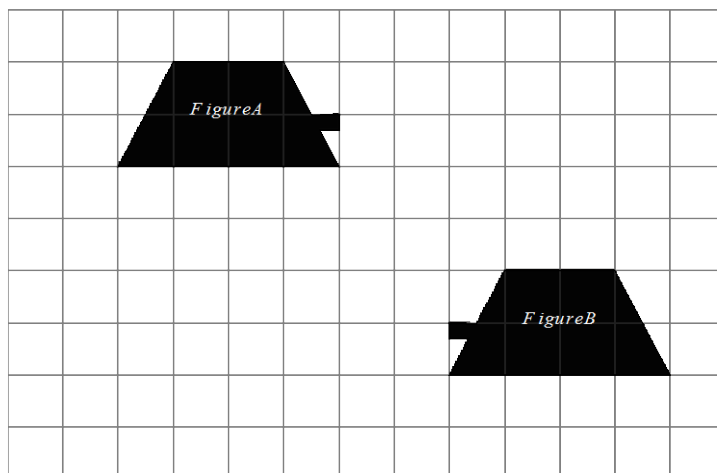


- c. Rotate  $\triangle XYZ$  around the point  $(1,0)$ , clockwise  $90^\circ$ . Label the image of the triangle with  $X'$ ,  $Y'$ , and  $Z'$ .



2. Use the picture below to answer the questions.

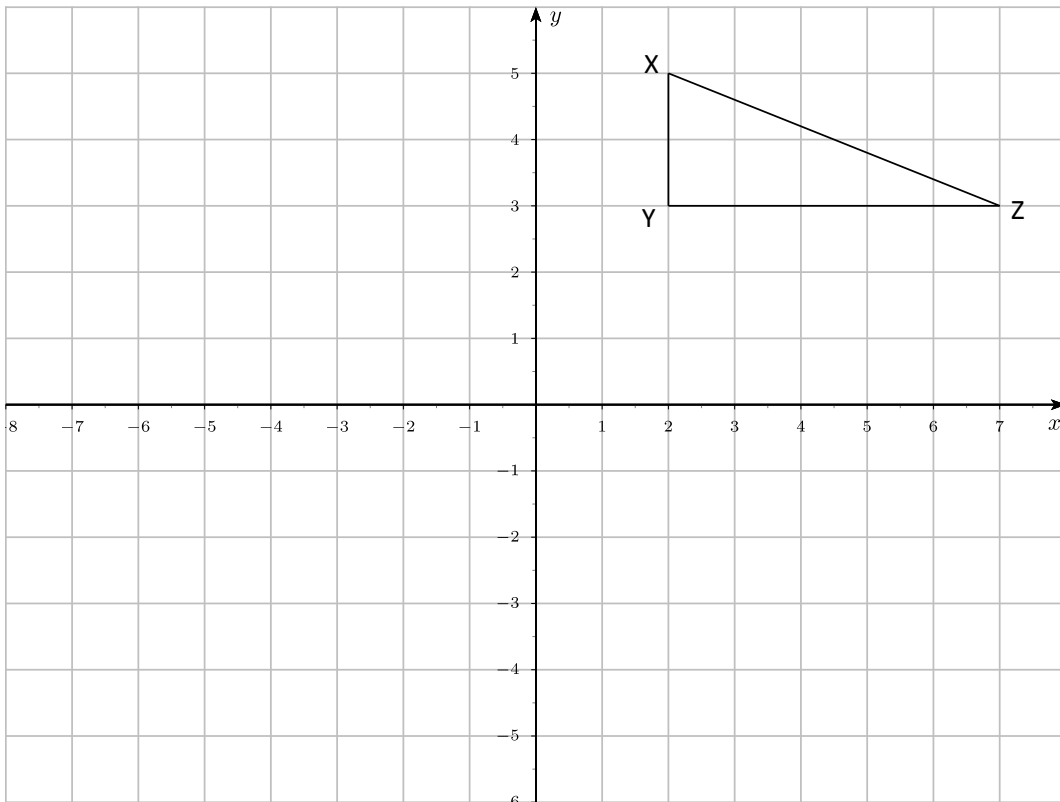
Figure A has been transformed to Figure B.



- a. Can Figure A be mapped onto Figure B using only translation? Explain. Use drawings, as needed, in your explanation.
- b. Can Figure A be mapped onto Figure B using only reflection? Explain. Use drawings, as needed, in your explanation.

3. Use the graphs below to answer parts (a) and (b).

- a. Reflect  $\triangle XYZ$  over the horizontal line (parallel to the  $x$ -axis) through point  $(0,1)$ . Label the reflected image with  $X'Y'Z'$ .



- b. One triangle in the diagram below can be mapped onto the other using two reflections. Identify the lines of reflection that would map one onto the other. Can you map one triangle onto the other using just one basic rigid motion? If so, explain.

