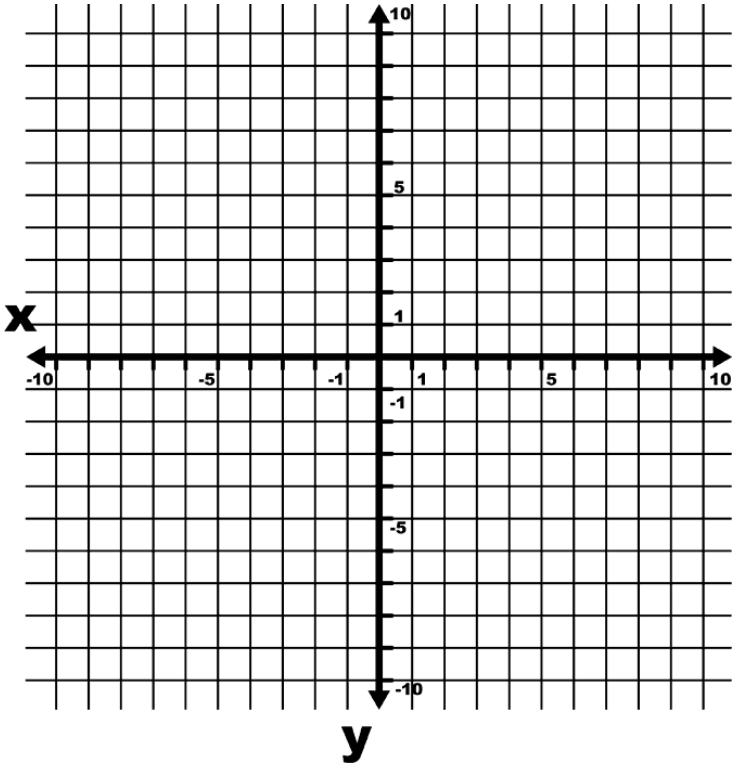
Geometry – G.CO.2 – Introduction and Exploration

1. Plot ΔABC with A(-9, 8), B(-4, 4) and C (-1, 6).



Now, for each of your vertices of ΔABC, TRANSFORM the coordinates in the following way:

Z(x, y) → Z'(x + 5, y -7)

For example, suppose we TRANSFORM point A from your triangle.

A(-9, 8) → A'(-9 **+ 5**, 8 **– 7**) → A'(-4, 1)

So, your new point called A' (you would say "A prime") would be at (-4, 1).

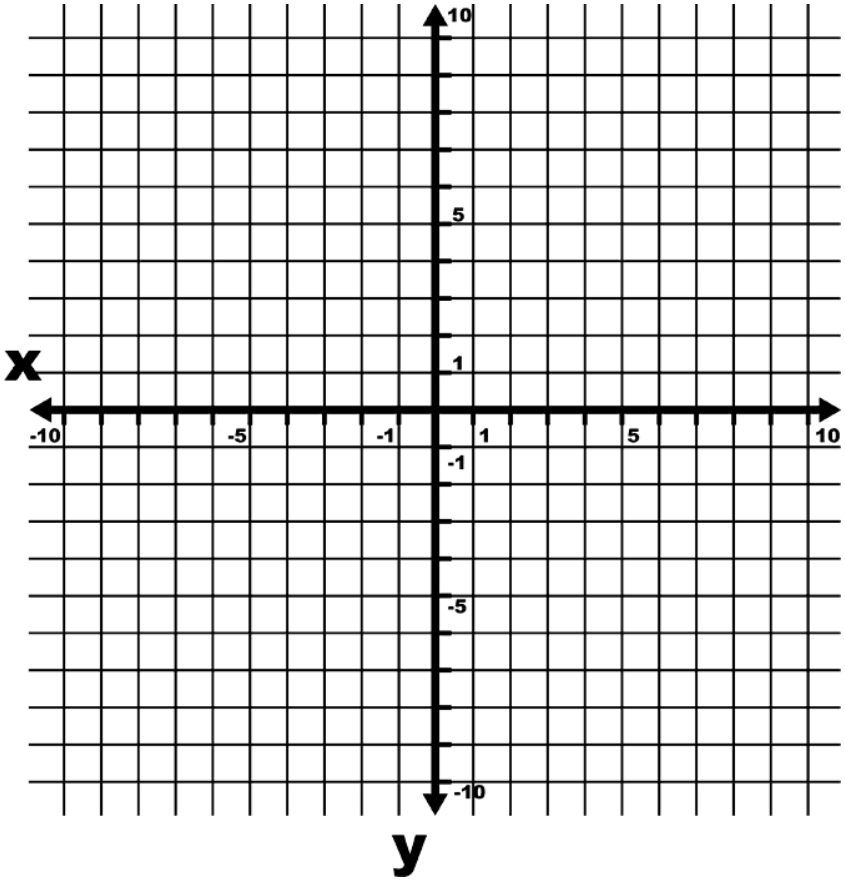
Now, transform B and C into B' and C'.

B' (,) C' (,)

Plot ΔA'B'C'.

Describe (in at least one complete sentence) how the ΔA'B'C' is different than ΔABC.

2. Now, replot ΔABC.



Now, transform A, B and C in the following way:

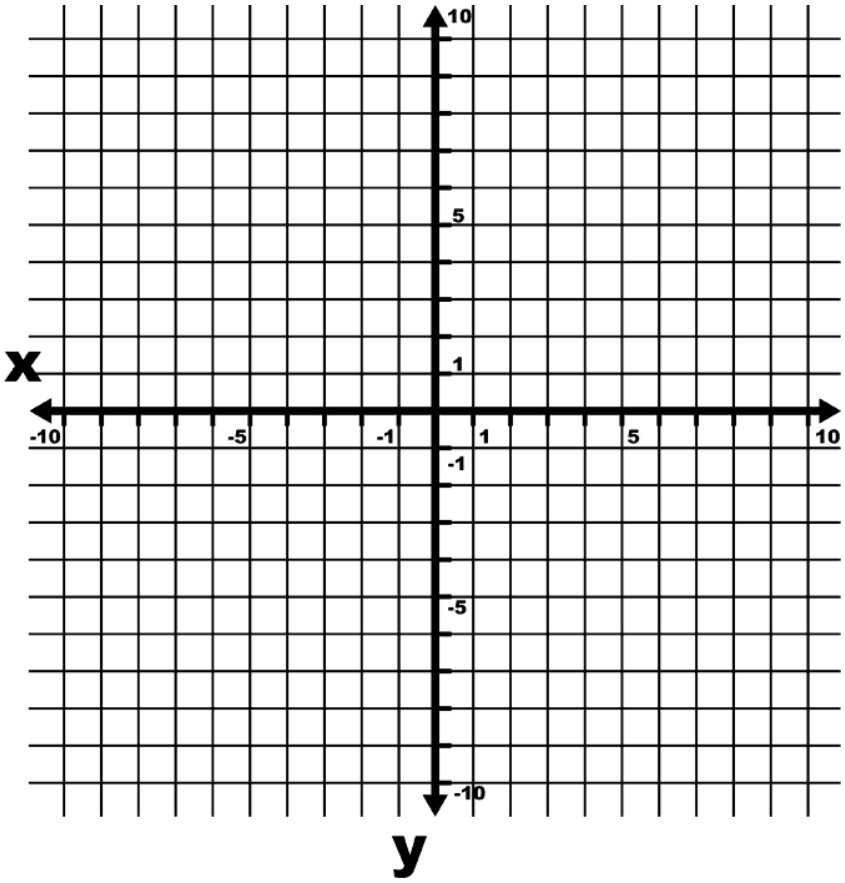
Z(x, y) → Z'(x, - y)

A' (,) B' (,) C' (,)

Plot ΔA'B'C'.

Describe (in at least one complete sentence) how the ΔA'B'C' is different than ΔABC.

3. Now, replot ΔABC.



Now, transform A, B and C in the following way:

Z(x, y) → Z'(- y, x)

A' (,) B' (,) C' (,)

Plot ΔA'B'C'.

Describe (in at least one complete sentence) how the ΔA'B'C' is different than ΔABC.