Geometry   Name_____

                                                  Hour_____
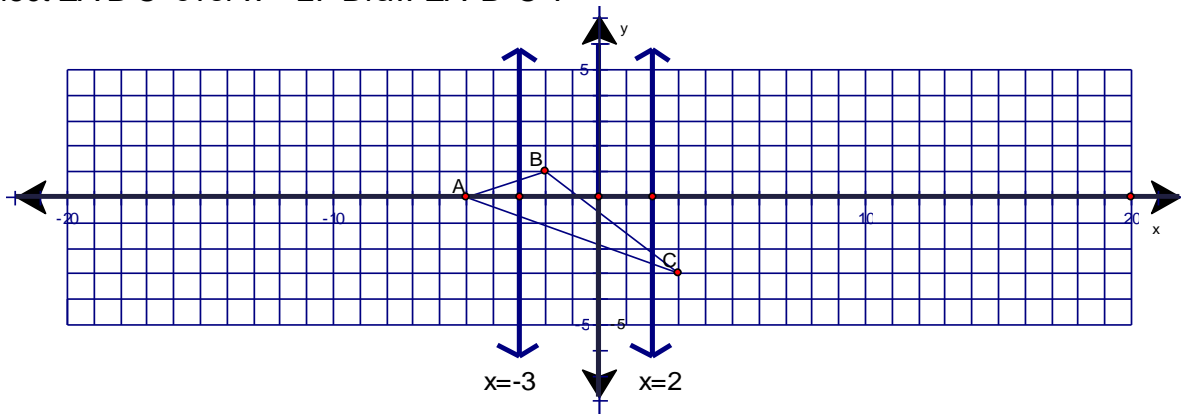
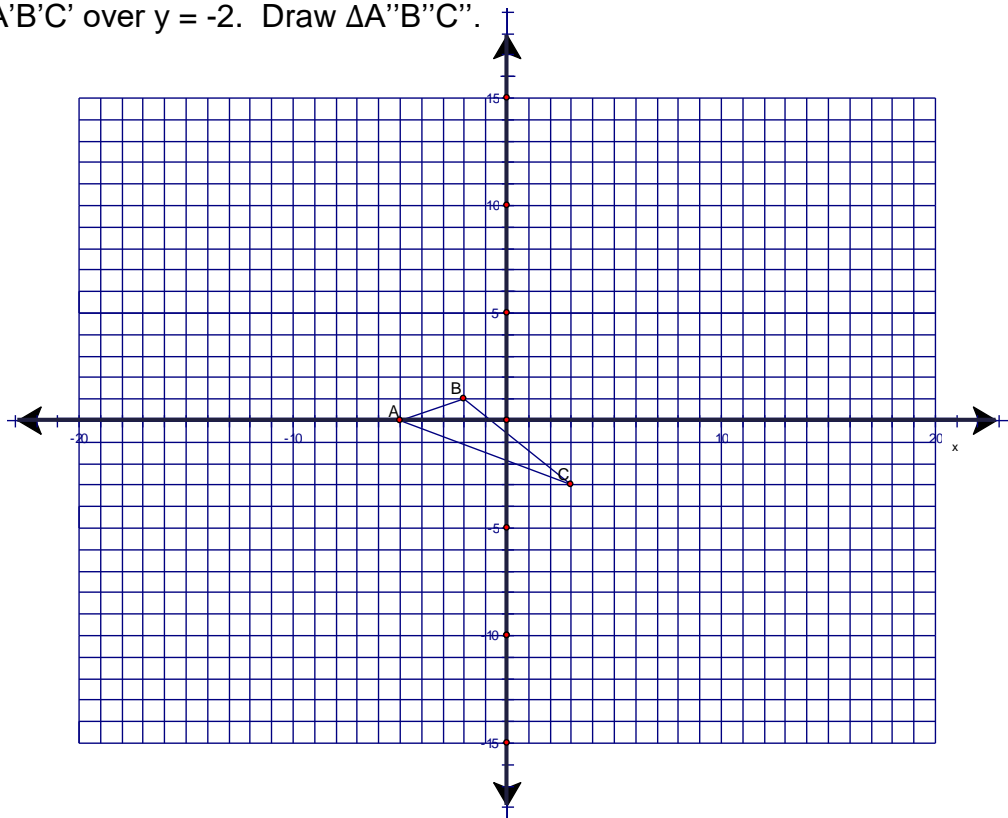**I will be able to:**

3.13 – Understand properties of double reflections

4.4 Exploration

1. Using a colored pencil, reflect ΔABC over x = -3 and label the points. Draw ΔA'B'C'.
2. Reflect ΔA'B'C' over x = 2. Draw ΔA''B''C''.

x=-3   x=2

3. What transformation occurred that would map ΔABC to ΔA''B''C''?_____
4. Draw $\overline{AA''}$, $\overline{BB''}$, and $\overline{CC''}$.
5. How far did ΔABC move to become ΔA''B''C''?_____

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1. Using a colored pencil, reflect ΔABC over y = 3 and label the points. Draw ΔA'B'C'.
2. Reflect ΔA'B'C' over y = -2. Draw ΔA''B''C''.

3. What transformation occurred that would map ΔABC to ΔA''B''C''?_____
4. Draw $\overline{AA''}$, $\overline{BB''}$, and $\overline{CC''}$.
5. How far did ΔABC move to become ΔA''B''C''?_____

DO YOU NOTICE ANYTHING?
If the lines are parallel, a reflection followed by a reflection is the same as a_____

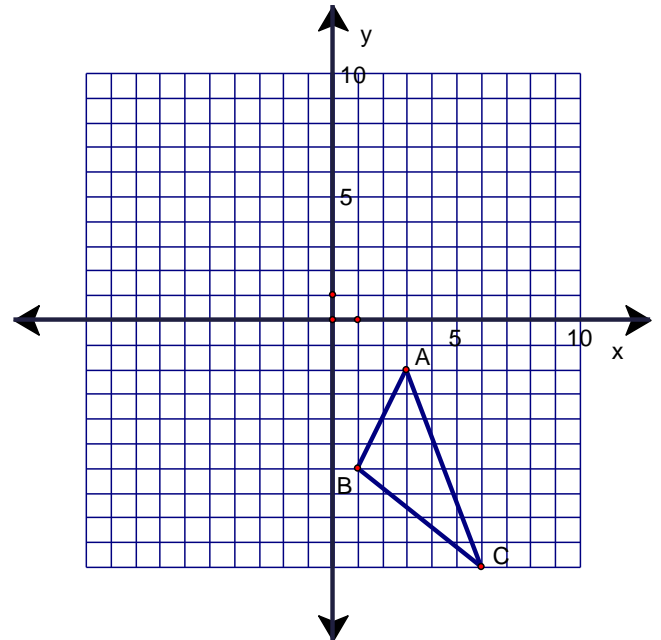If the lines of reflection are parallel, how does the distance between the lines of reflection compare to
        ΔABC to ΔA''B''C''?

_____

1. Reflection ΔABC over the line y = 0. Draw ΔA'B'C'.

2. Reflect ΔA'B'C' over y = x. Draw ΔA''B''C''.

A	(3, -2)	B	(1, -6)	C	(6, -10)
A'		B'		C'	
A''		B''		C''	

3. What transformation occurred that would map
        ΔABC to ΔA''B''C''?

_____

1. Reflection ΔABC over the line y = x. Draw ΔA'B'C'.

2. Reflect ΔA'B'C' over y = 0. Draw ΔA''B''C''.

A	(3, -2)	B	(1, -6)	C	(6, -10)
A'		B'		C'	
A''		B''		C''	

3. What transformation occurred that would map
        ΔABC to ΔA''B''C''?

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