

Lesson 6-2: Analyze Reflections

1. Sample answer: A reflection creates an image that has the same size and shape as its preimage, but with a different orientation. The image and preimage are the same distance from the line of reflection.
2. Sample answer: When a preimage is reflected across the x-axis, the x-values stay the same and the y-values are multiplied by -1.
3. No; Sample answer: The x-values would stay the same since the line $y = 5$ is a horizontal line just like the x-axis.
4. Yes
5. Sample answer: Figure $E'F'G'H'$ is a reflection of figure $EFGH$ across the line $y = 4$.
6. $E' (6,1)$, $F' (5,3)$, $G' (2,2)$, $H' (0,2)$
7.

A (2,8)	A' (-2,8)
B (6,8)	B' (-6,8)
C (8,3)	C' (-8,3)
D (1,3)	D' (-1,3)
8. No; Sample answer: The points of the image are not the same distance from the line as the corresponding points of the preimage.
9. Quadrilateral $A'B'C'D'$ is a reflection of quadrilateral $ABCD$ across the line $x = 1$.
10. a. Sample answer: My friend was looking at the direction in which the triangle was reflected but was not paying attention to the horizontal line that is halfway between the two triangles.
b. $\triangle E'F'G'$ is a reflection of $\triangle EFG$ across the line $y = -1$.
11. (-2, -5)
12. Parallelogram $A'B'C'D'$ is a reflection of parallelogram $ABCD$ across the line $y = 3$.
13. a. B
b. $m\angle A' = 90^\circ$