

9/21 Lesson 19: Rigid Motions

Moving an object around a fixed point — Rotation

• A Left/Right or up/down Slide — Translation

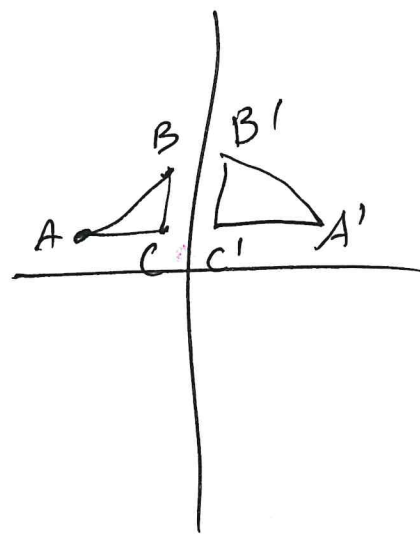
* A reflection / mirror image

ex 1 Reflection: across y-axis X-change

$$A(-4, 1) \quad A'(4, 1)$$

$$B(-1, 3) \quad B'(1, 3)$$

$$C(-2, 1) \quad C'(2, 1)$$



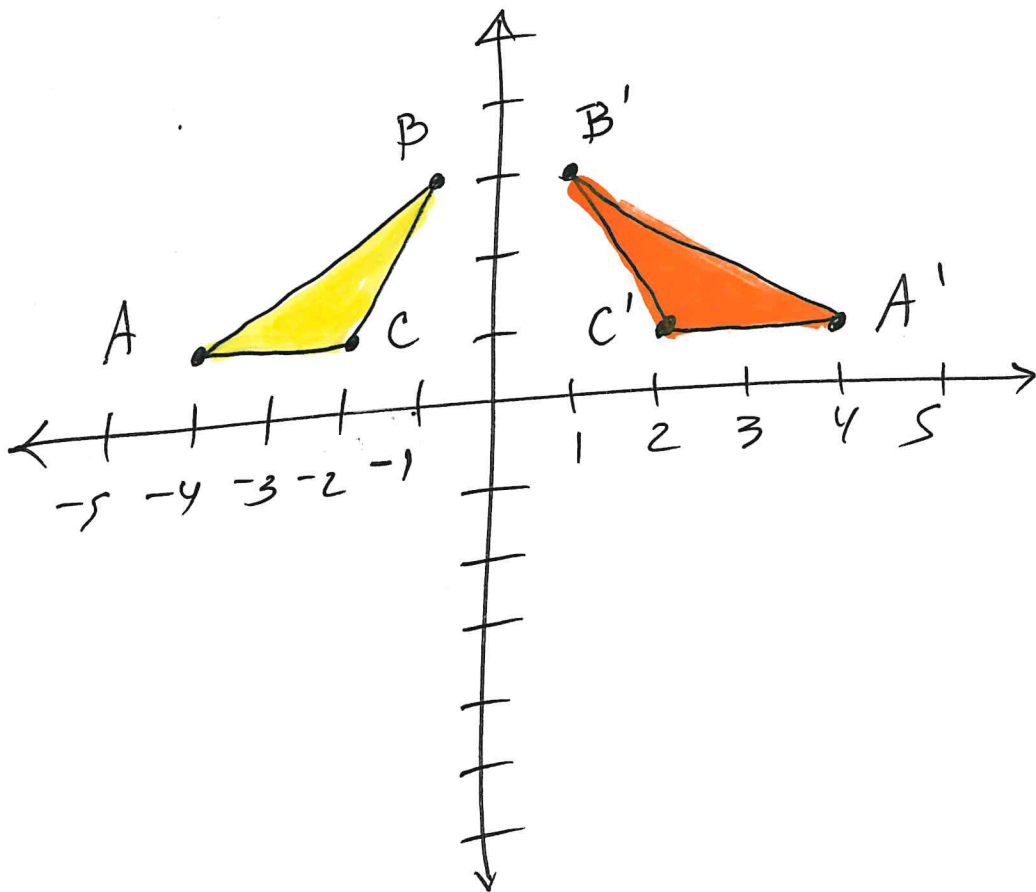
(1)

ex1] Reflection: across y-axis
(x-changed)

$$A(-4, 1) \quad A'(4, 1)$$

$$B(-1, 3) \quad B'(1, 3)$$

$$C(-2, 1) \quad C'(2, 1)$$



Translation: $(x, y) \rightarrow (x+2, y-1)$

ex2

$$A(-2, -1)$$

$$B(-4, -3)$$

$$C(-1, -3)$$

$$A'(-2 \oplus 2, -1 \ominus 1)$$

$$A'(0, -2)$$

$$B'(-4 \oplus 2, -3 \ominus 1)$$

$$B'(-2, -4)$$

$$C'(-1 \oplus 2, -3 \ominus 1)$$

$$C'(1, -4)$$

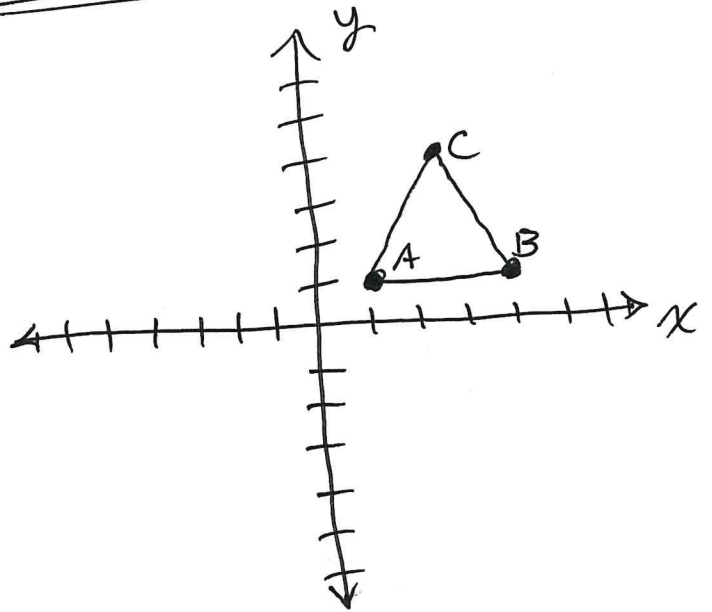
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1, 2

Name: _____

HR: _____

1.) Reflect across x-axis

A (1, 1) A' (,)
B (2, 4) B' (,)
C (4, 1) C' (,)



2.) Translate figure 3 right : 2 down
 $(x, y) \rightarrow (x+3, y-2)$

A (-4, 4)

3 (-1, 4)

c (-3, 1)

A' (-4 + 3, 4 - 2) = (,)

3' (,) = (,)

c' (,) = (,)

