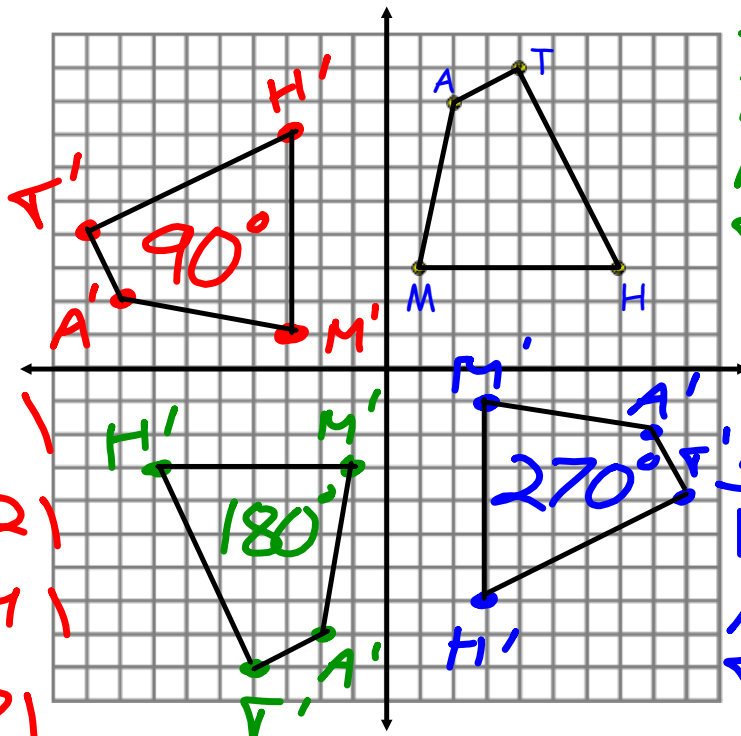


HW: Worksheet

Graph quadrilateral MATH with vertices $M(1, 3)$, $A(2, 8)$, $T(4, 9)$, and $H(7, 3)$. Rotate the figure 90° , 180° , and 270° about the origin and graph the images.

M(1,3)
 A(2,8)
 T(4,9)
 H(7,3)



180°
 M'(-1,-3)
 A'(-2,-8)
 T'(-4,-9)
 H'(-7,-3)

90°
 M'(-3,1)
 A'(-8,2)
 T'(-9,4)
 H'(-3,7)

270°
 M'(3,-1)
 A'(8,-2)
 T'(9,-4)
 H'(3,-7)

180°

270°

90°

90°

$$(x, y) \rightarrow (-y, x)$$

 180°

$$(x, y) \rightarrow (-x, -y)$$

 270°

$$(x, y) \rightarrow (y, -x)$$

$(5, 7) 270^\circ$

$(7, -5)$

$(-3, -6) 90^\circ$

$(6, -3)$

$(-1, 8) 180^\circ$

$(1, -8)$

Rotate triangle
ABC 90, 180,
and 270
degrees.

A(1, 7)

B(-2, 1)

C(2, 4)

90°

A'(-7, 1)

B(-1, -2)

C(-4, 2)

180°

A'(1, -7)

B(2, -1)

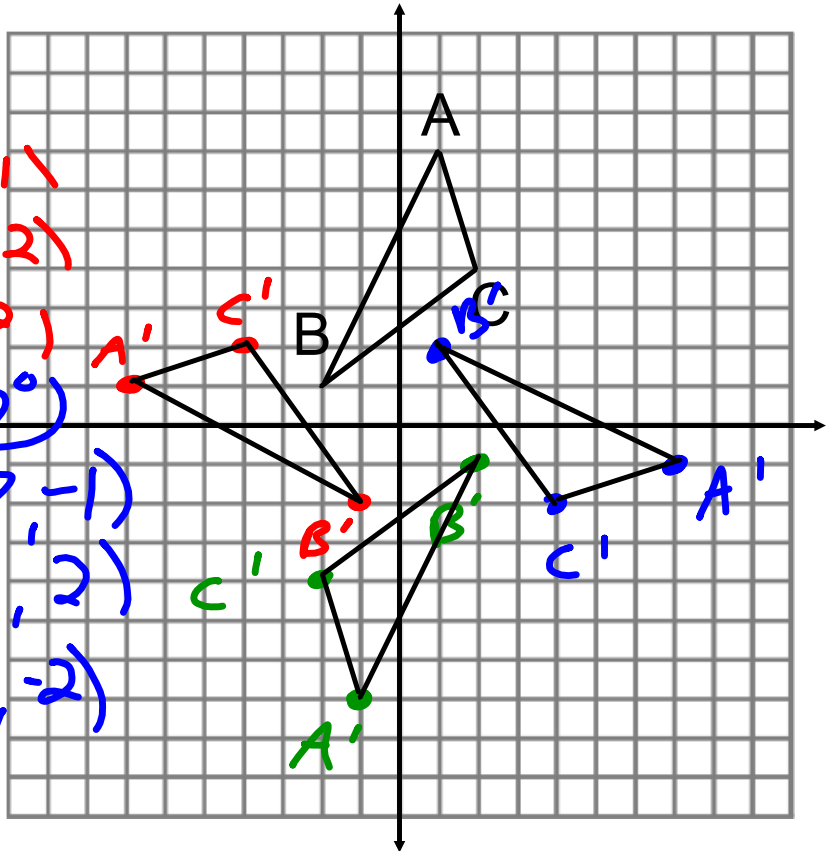
C(-2, -4)

270°

A'(7, -1)

B'(1, 2)

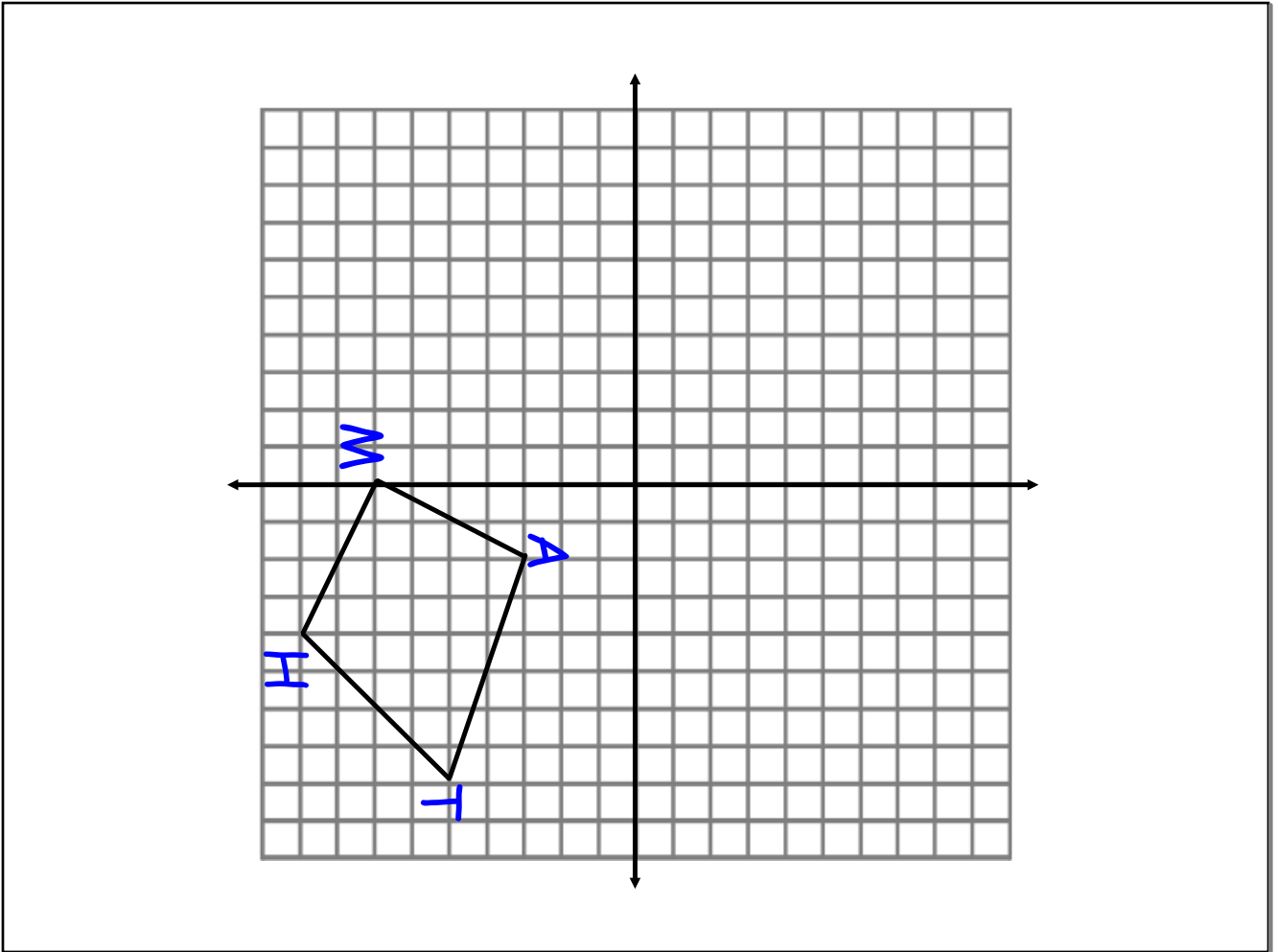
C'(4, -2)

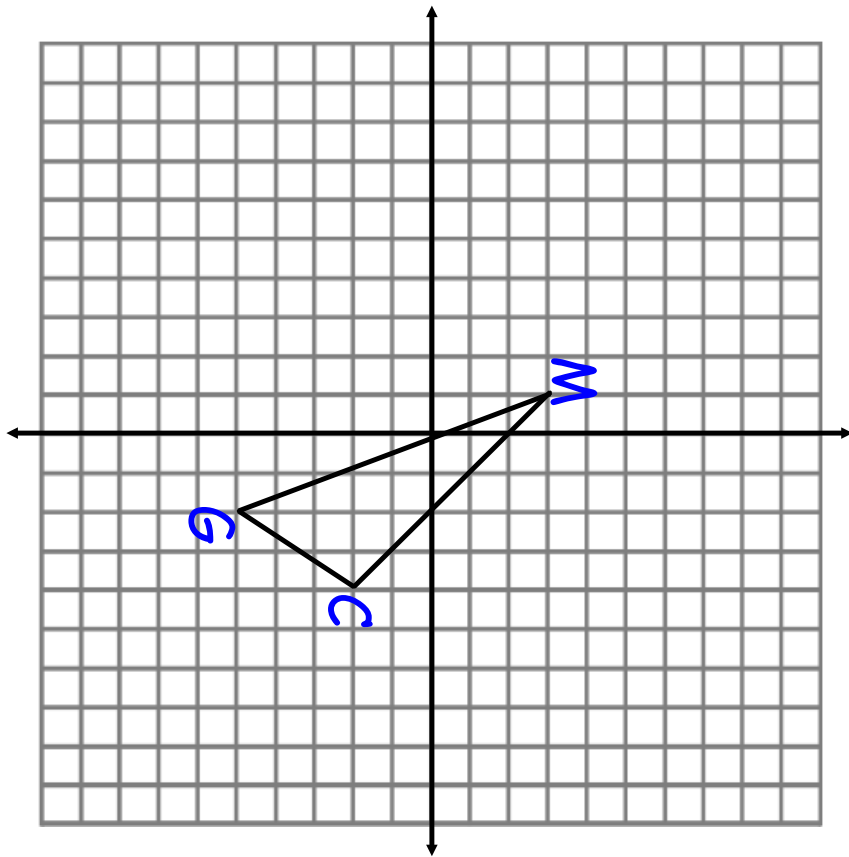


1) Graph quadrilateral MATH with vertices $M(0, -7)$, $A(2, -3)$, $T(8, -5)$, and $H(4, -9)$. Rotate the figure 90, 180, and 270 degrees about the origin and graph the images.

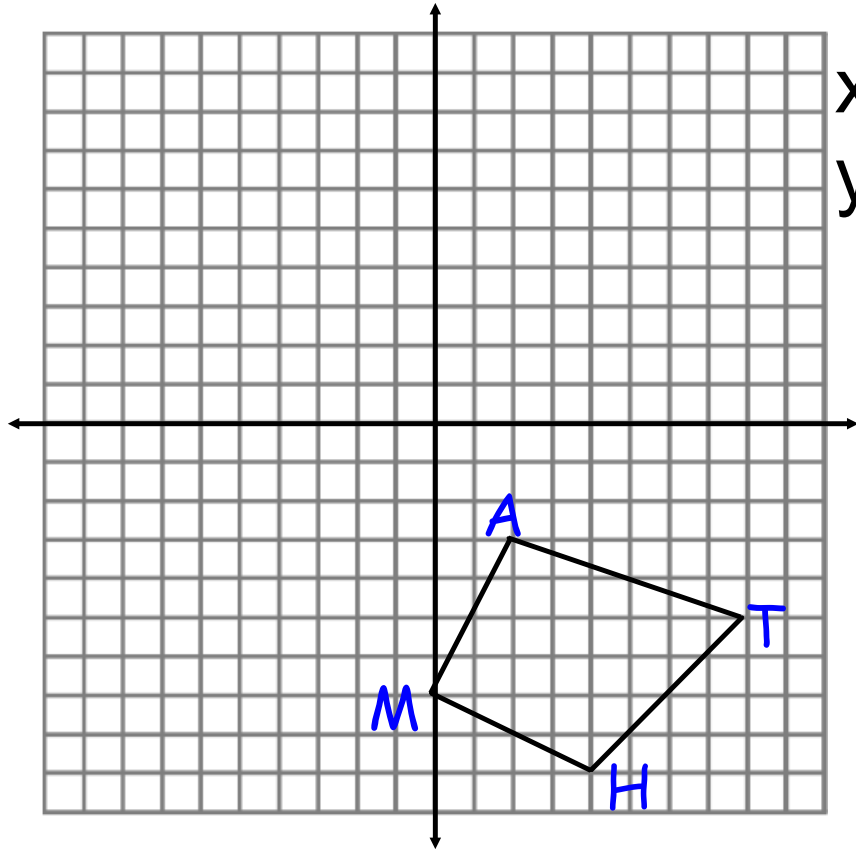
2) Graph triangle MCG with vertices $M(-1, 3)$, $C(4, -2)$, and $G(2, -5)$. Rotate the triangle 90, 180, and 270 degrees about the origin and graph the images. Do each rotation on a separate coordinate plane.

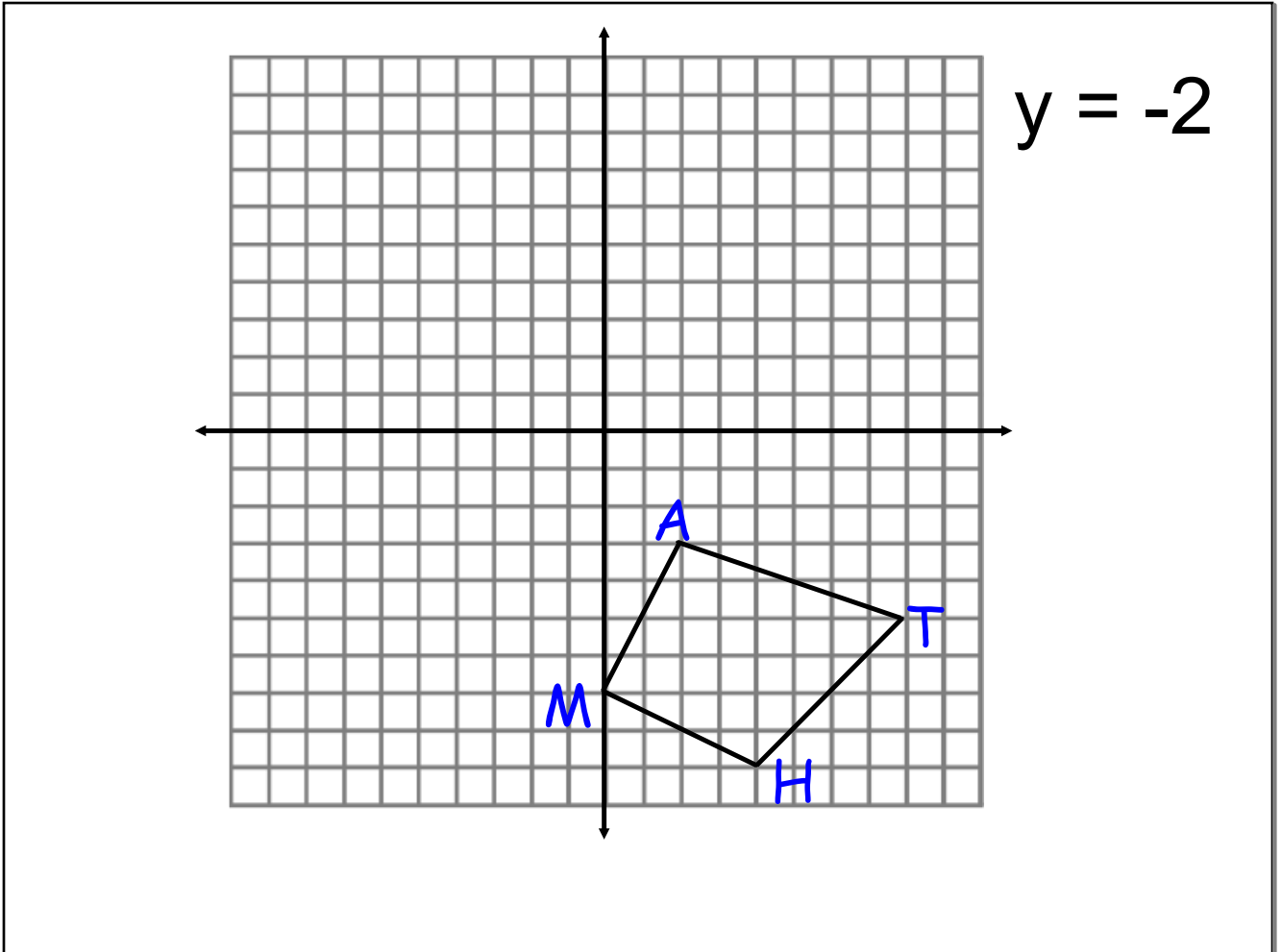
3) Reflect quadrilateral MATH from #1 over the x-axis, y-axis, and the line $y = -2$.





x-axis
y-axis





February 10, 2022

