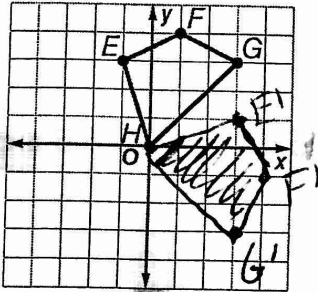


Lesson 3 Homework Practice

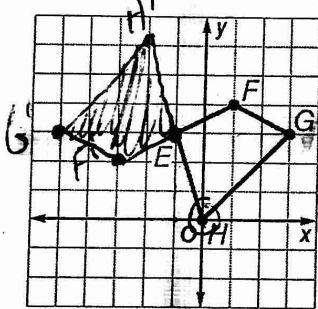
Rotations

1. 90° rotation clockwise about vertex H

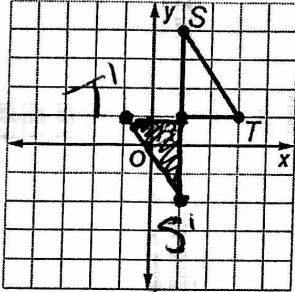


Coordinates from Vertex (not origin)	Rotation $(x, y) \rightarrow (y, -x)$	Coordinates of Image from the origin
$E(-1, 3)$	$(3, 1)$	$E'(3, 1)$
$F(1, 4)$	$(4, -1)$	$F'(4, -1)$
$G(3, 3)$	$(3, -3)$	$G'(3, -3)$
$H(0, 0)$	$(0, 0)$	$H'(0, 0)$

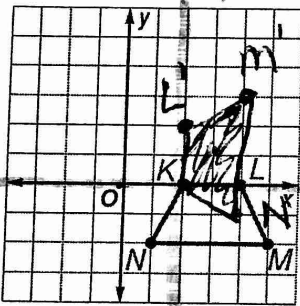
2. 180° counterclockwise about vertex E



Coordinates from Vertex (not origin)	Rotation $(x, y) \rightarrow (-x, -y)$	Coordinates of Image from the origin
$E(0, 0)$	$(0, 0)$	$E'(-1, 3)$
$F(2, 1)$	$(-2, -1)$	$F'(-3, 2)$
$G(4, 0)$	$(-4, 0)$	$G'(-5, 3)$
$H(1, -3)$	$(-1, 3)$	$H'(-2, 6)$

3. 180° rotation about vertex R 

Coordinates from Vertex (not origin)	Rotation $(x, y) \rightarrow (-x, -y)$	Coordinates of Image from the origin
$R(0,0)$	$(0,0)$	$R'(1,1)$
$S(0,3)$	$(0,-3)$	$S'(1,-2)$
$T(2,0)$	$(-2,0)$	$T'(-1,1)$

4. 90° counterclockwise rotation about vertex K 

Coordinates from Vertex (not origin)	Rotation $(x, y) \rightarrow (-y, x)$	Coordinates of Image from the origin
$K(0,0)$	$(0,0)$	$K'(2,0)$
$L(2,0)$	$(0,2)$	$L'(2,2)$
$M(3,-2)$	$(2,3)$	$M'(4,3)$
$N(-1,-2)$	$(2,-1)$	$N'(4,-1)$