

Name _____

4-6A Lesson Master

Questions on SPUR Objectives

See Student Edition pages 293–297 for objectives.

PROPERTIES Objective F

- Suppose a point A has coordinates $(0, a)$.
 - On which axis is A ? _____
 - Under which reflection is $(0, a)$ the image of A ? _____
- Fill in the Blank** Write *always, sometimes but not always, or never*.
Reflection images are _____ congruent to their preimages.

PROPERTIES Objective G

In 3–6, complete the table for reflection matrices.

Reflection over	Symbol	Image of (x, y)	Matrix
3. the x -axis _____	_____	$(x, -y)$ _____	_____
4. _____	$r_{y=x}$ _____	_____	_____
5. the line $y = -x$ _____	_____	_____	$\begin{bmatrix} 0 & -1 \\ -1 & 0 \end{bmatrix}$ _____
6. _____	_____	$(-x, y)$ _____	_____

- For a certain transformation T , $T(1, 0) = (m, n)$ and $T(0, 1) = (p, q)$.
Give the matrix for T . _____

REPRESENTATIONS Objective K

In 8 and 9, consider quadrilateral $PAUL$ at the right.

- Give a matrix for $PAUL$. _____
- Show the matrix multiplication to find $P'A'U'L'$, $PAUL$'s reflection over the line $y = x$, and graph it at the right.

