

Name _____

4-10A Lesson Master

Questions on SPUR Objectives
See Student Edition pages 293–297 for objectives.

PROPERTIES Objective F

1. **Fill in the Blanks** $T_{3,-2}$ is a translation _____ units to the right and _____ units _____.

True or False In 2–4, $P'D'Q'$ is the image of PDQ under a translation.

2. $D'Q' = DQ$ _____
3. $P'D'Q'$ is congruent to PDQ . _____
4. $\overline{PQ} \parallel \overline{P'Q'}$ _____

PROPERTIES Objective G

5. A triangle represented by $\begin{bmatrix} 4 & 7 & 2 \\ -3 & -2 & 0 \end{bmatrix}$ is translated four units to the left and thirteen units down. Give the matrix for the image. _____
6. $QUAD$ is a matrix representing a quadrilateral. Give the matrix you would add to $QUAD$ to translate it 12 units up and 3 units to the left. _____

PROPERTIES Objective H

7. Line m is the image of the line $y = 4x + 2$ under a translation. What is the slope of line m ? _____
8. Find an equation for the image of $y = 2x - 5$ under $T_{7,2}$. _____

REPRESENTATIONS Objective K

In 9–12, a quadrilateral $ABCD$ has vertices $A = (2, 1)$, $B = (3, -4)$, $C = (-6, -4)$, and $D = (-5, 1)$.

9. Graph $ABCD$ at the right.
10. Find and graph $A'B'C'D'$, the image of $ABCD$ under $T_{2,-5}$.
11. Find and graph $A''B''C''D''$, the image of $A'B'C'D'$ under a translation five units to the left and 2 units up.
12. What single translation would map $ABCD$ onto $A''B''C''D''$?

