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### 4.4 Notetaking with Vocabulary (continued)

## Extra Practice

1. Identify any congruent figures in the coordinate plane. Explain.

2. Describe a congruence transformation that maps $\triangle P Q R$ to $\triangle S T U$.

3. Describe a congruence transformation that maps polygon $A B C D$ to polygon $E F G H$.


Name $\qquad$

### 4.4 Notetaking with Vocabulary (continued)

In Exercises 4 and 5, determine whether the polygons with the given vertices are congruent. Use transformations to explain your reasoning.
4. $A(2,2), B(3,1), C(1,1)$ and
$D(2,-2), E(3,-1), F(1,-1)$

5. $G(3,3), H(2,1), I(6,2), J(6,3)$ and

$$
K(-2,-1), L(-3,-3), M(2,-2), N(2,-1)
$$



In Exercises 6-9, $k \| m, \overline{U V}$ is reflected in line $k$, and $\overline{U^{\prime} V^{\prime}}$ is reflected in line $m$.
6. A translation maps $\overline{U V}$ onto which segment?
7. Which lines are perpendicular to $\overline{U U^{\prime \prime}}$ ?
8. Why is $V^{\prime \prime}$ the image of $V$ ? Explain your reasoning.

9. If the distance between $k$ and $m$ is 5 inches, what is the length of $\overline{V V^{\prime \prime}}$ ?
10. What is the angle of rotation that maps $A$ onto $A^{\prime \prime}$ ?


