4.4 Extra Practice

1. $\square ABCD \cong \square MNOP$, $\square STUV \cong \square EFGH$, $\triangle PQR \cong \triangle JKL$; $\square MNOP$ is a translation 5 units left and 2 units down of $\square ABCD$. $\square STUV$ is a reflection of $\square EFGH$ in the line $y = x$. $\triangle JKL$ is a 90° rotation of $\triangle PQR$.

2. *Sample answer:* translation 5 units up followed by a 180° rotation about the origin

3. *Sample answer:* reflection in the line $x = 1$ followed by a translation 2 units right and 5 units down

4. yes; $\triangle DEF$ is a reflection of $\triangle ABC$ in the x-axis.

5. no; M and N are translated 4 units left and 4 units down of their corresponding vertices, I and J, but K and L are translated 5 units left and 4 units down of their corresponding vertices, G and H. So, this is not a rigid motion.

6. $\overline{U''V''}$

7. line k and line m

8. line k and line m are parallel

9. 10 in.

10. 120°