LESSON 18-2

Practice and Problem Solving: A/B

1. Congruent; Possible answer: there is a rigid motion (a translation to the right and down) that maps one figure onto the other.

2. Not congruent; Possible answer: the figures are different sizes, so there is no rigid motion that maps one figure onto the other.

3. $\square ABC$ maps onto $\square DEF$

   Translation: $(x, y) \rightarrow (x - 1, y - 5)$

   Reflection: $(x, y) \rightarrow (-x, y)$

4. Figure $ABCDEFGH$ maps onto figure $MNPQRSTV$

   Rotation: $(x, y) \rightarrow (-y, x)$

   Translation: $(x, y) \rightarrow (x + 6, y)$

5. Yes

6. Yes

7. No

8. No

LESSON 18-3

Practice and Problem Solving: A/B

1. $\angle K \cong \angle G,\ \angle L \cong \angle H,\ \angle M \cong \angle I;\ \overline{KL} \cong \overline{GH},\ \overline{LM} \cong \overline{HI},\ \overline{KM} \cong \overline{GI}$

2. $\angle W \cong \angle D,\ \angle X \cong \angle E,\ \angle Y \cong \angle F,\ \angle Z \cong \angle G,\ \overline{WX} \cong \overline{DE},\ \overline{XY} \cong \overline{EF},$
   $\overline{YZ} \cong \overline{FG},\ \overline{WZ} \cong \overline{DG}$

3. 0.2

4. 25

5. 5

6. 40.5

7.

Strategies	Reasons
1. quadrilateral $MNPQ \cong$ quadrilateral $RSTU$	1. Given
2. $\overline{MN} \cong \overline{PQ}$	2. Given
3. $\overline{PQ} \cong \overline{TU}$	3. Corresponding parts of congruent figures are congruent.
4. $\overline{MN} \cong \overline{TU}$	4. Transitive Property of Congruence