LESSON 14-1

Practice and Problem Solving: A/B

1. 180°
2. $\overrightarrow{QR}$
3. 130°
4. 40°
5. 35
6. 100
7. 50°
8. 130°
9. $m\angle DEF = 29°$; $m\angle FEG = 61°$
10. $m\angle DEF = 91°$; $m\angle FEG = 89°$
11. Possible answers: $\angle 1$ and $\angle 3$ or $\angle 2$ and $\angle 4$
12. Possible answers: $\angle 1$ and $\angle 2$; $\angle 2$ and $\angle 3$; $\angle 3$ and $\angle 4$; or $\angle 1$ and $\angle 4$
13. right
14. 45°; 45°

LESSON 14-2

Practice and Problem Solving: A/B

1. 47°
2. 119°
3. 97°
4. 62°
5. a. $m\angle 2 + m\angle 3 = 180°$
   b. Corr. $\angle$s Thm.
   c. $m\angle 1 = m\angle 2$
   d. $m\angle 1 + m\angle 3 = 180°$
   e. Subst.
6. $x = 50$; $y = 25$

LESSON 14-3

Practice and Problem Solving: A/B

1. $m \parallel n$; Conv. of Alt Int. $\angle$s Thm.
2. $m \parallel n$; Conv. of Corr. $\angle$s Thm.
3. m and n are parallel if and only if $m\angle 7 = 90°$.
4. $m \parallel n$; Conv. of Same-Side Int. $\angle$s Thm.
5. m and n are not parallel.
6. $m \parallel n$; Conv. of Corr. $\angle$s Thm.
7. $m \parallel n$; Conv. of Alt Ext. $\angle$s Thm.
8. m and n are not parallel.
9. Possible answer: The given information states that $\angle 1$ and $\angle 3$ are supplementary. $\angle 1$ and $\angle 2$ are also supplementary by the Linear Pair Theorem. Therefore $\angle 3$ and $\angle 2$ must be congruent by the Congruent Supplements Theorem. Since $\angle 3$ and $\angle 2$ are congruent, $\overline{HI}$ and $\overline{JK}$ are parallel by the Converse of the Corresponding Angles Theorem.