Name: _____ Date: _____ Row: _____ Period: _____

Assignment #: _____

CHAPTER 3 REVIEW WORKSHEET

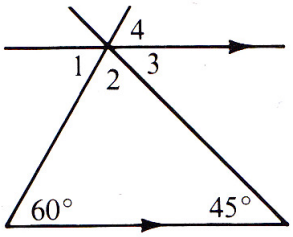
Remember to organize and show all of your work.

Complete each statement with the word *always, sometimes,* or *never.*

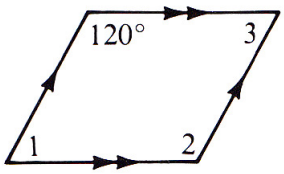
1. Two lines that do not intersect are ___?___ parallel.
2. Two lines parallel to the same plane ___?___ intersect.
3. Through a point not on a line, one can ___?___ draw a line parallel to the line.
4. An acute triangle is ___?___ a right triangle.
5. Two lines parallel to a third line are ___?___ parallel to each other.
6. If two lines are cut by a transversal, then corresponding angles are ___?___ congruent.
7. Two lines perpendicular to the same line are ___?___ parallel.

Find the measures of the numbered angles in the diagrams shown.

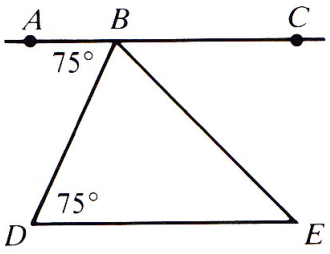
8.



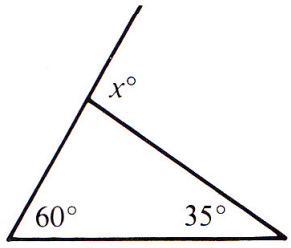
9.



10. Explain why $\overleftrightarrow{AC}$ and $\overleftrightarrow{DE}$ must be parallel.



11. Find the value of x.



12. A polygon has 7 sides. Find the sum of the measures of the interior angles.

13. A regular polygon has 15 sides. Find the measure of each exterior angle.

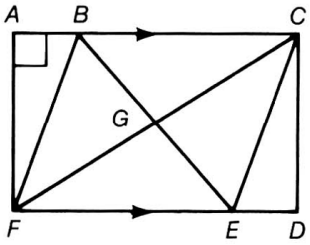
14. Use inductive reasoning to predict the next two numbers in each sequence.

a. 1, 6, 10, 13, . . .

b. $\frac{1}{4}$, 1, 4, 16, . . .

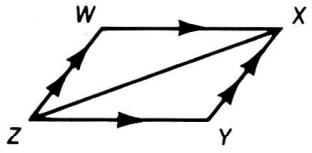
Practice 13
Cumulative Practice, Chapters 1–3

In Exercises 1–14, refer to the diagram. Complete.



Exs. 1–14

1. $m\angle AFE =$ _____
2. If $BG = x + 4$, $GE = 3x - 2$, and G is the midpoint of $\overline{BE}$, find the value of x. _____
3. $AB +$ _____ $= AC$
4. How many lines parallel to $\overleftrightarrow{FD}$ can be drawn through A? _____
5. The sum of the measures of the angles of quad. $ABGF$ is _____.
6. Name an angle congruent to $\angle ACF$. _____
7. Name an angle congruent to $\angle BGF$. _____
8. If $AB = ED$ and $BC = FE$, then $AC =$ _____.
9. $m\angle BCF + m\angle FCE = m\angle$_____.
10. Can you conclude from the figure that $\overline{AC} \perp \overline{CD}$? _____
11. If $m\angle ACE = 6x + 9$ and $m\angle CEF = 10x - 5$, find the value of x. _____
12. Describe the intersection of $\overleftrightarrow{FB}$ and $\overleftrightarrow{AC}$. _____
13. Another name for $\overrightarrow{AB}$ is _____.
14. Name a complement of $\angle ABF$. _____
15. Write the converse of "If $x < 0$, then $-x > 0$." _____
16. Each exterior angle of a regular convex 18-sided polygon has measure _____.
17. Complete the proof.
    Given: $\overline{WX} \parallel \overline{ZY}$; $\overline{WZ} \parallel \overline{XY}$
    Prove: $\angle W \cong \angle Y$



Proof:

Statements	Reasons
1. $\overline{WX} \parallel \overline{ZY}$; $\overline{WZ} \parallel \overline{XY}$	1. _____
2. $\angle WXZ \cong \angle XZY$; $\angle WZX \cong \angle ZXY$	2. _____
3. $\angle W \cong \angle Y$	3. _____