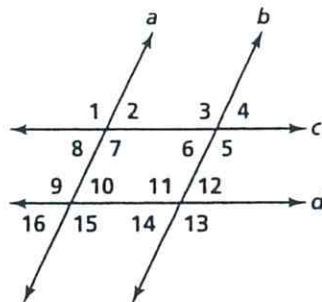# Chapter 3   Review

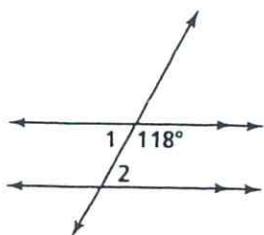**Decide whether each statement must be *true* or *false*. Use the figure for Exercises 1-5**

1. $\angle 2$ and $\angle 10$ are corresponding angles.

2. $\angle 3$ and $\angle 7$ are alternate interior angles.

3. $\angle 1$ and $\angle 8$ are same-side interior angles.

4. If $\angle 11$ and $\angle 15$ are congruent, then $a \parallel b$.

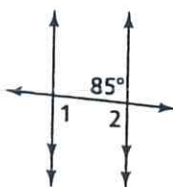5. If $\angle 14$ and $\angle 15$ are supplementary, then $c \parallel d$.

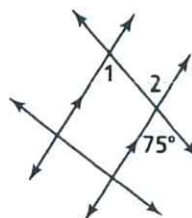**Find $m\angle 1$ and $m\angle 2$.   State the theorem or postulate used as a justification.**
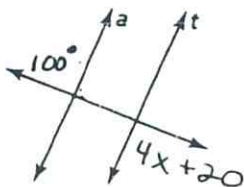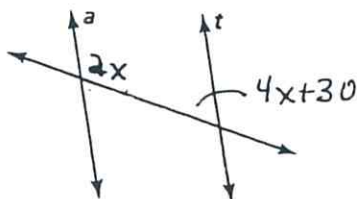
6.

7.

8.

Algebra **Find the value of x for which $a \parallel t$.**
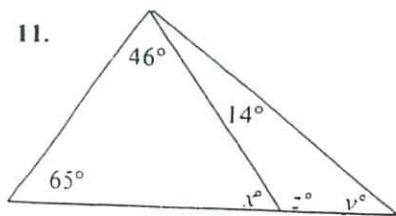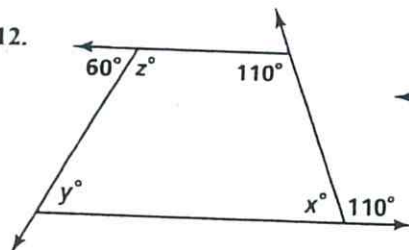
9.

10.

Algebra

Find the values of x, y, and z. The diagram is not to scale.
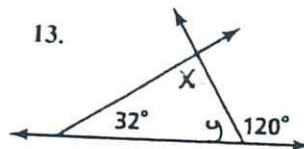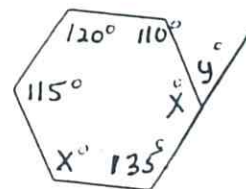
11.

12.

13.

14.

For 15-17, draw the triangle described. Use tic marks to show congruent sides.

15. Isosceles right

16. Equilateral & equiangular

17. Scalene obtuse

18. What is the measure of an exterior angle of a regular 20-gon?

19. What is the interior angle sum of a convex 35-gon?

20. Find the measures of an interior angle and an exterior angle of a regular polygon with 8 sides.