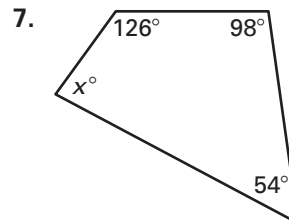
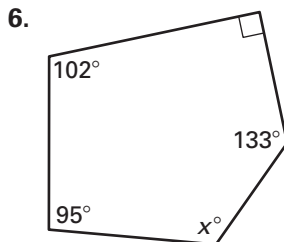
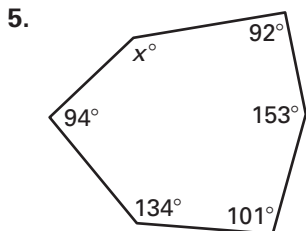


**Practice C**

For use with pages 661–668

**Find the sum of the measures of the interior angles of the convex polygon.**

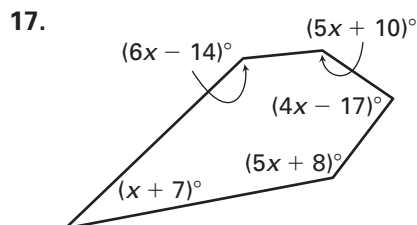
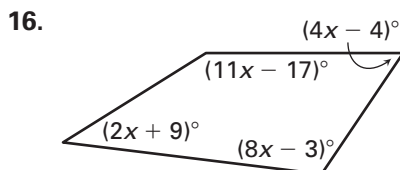
1. heptagon                      2. decagon                      3. 16-gon                      4. 24-gon

**Find the value of  $x$ .****You are given the measure of each interior angle of a regular  $n$ -gon. Find the value of  $n$ .**

8.  $135^\circ$                       9.  $156^\circ$                       10.  $162^\circ$                       11.  $172\frac{4}{5}^\circ$

**You are given the measure of each exterior angle of a regular  $n$ -gon. Find the value of  $n$ .**

12.  $40^\circ$                       13.  $36^\circ$                       14.  $7\frac{1}{2}^\circ$                       15.  $2^\circ$

**Find the value of  $x$ .****Would it be possible for a regular polygon to have interior angles with the angle measure described? Explain.**

18.  $155^\circ$                       19.  $160^\circ$                       20.  $165^\circ$                       21.  $168^\circ$

**Tell whether each statement is *always*, *sometimes*, or *never* true.**

22. As the number of sides of a polygon increases, the sum of the interior angles increases.
23. As the number of sides of a polygon increases, the sum of the exterior angles decreases.
24. A regular polygon is equilateral.
25. An equilateral polygon is regular.
26. If the number of sides of an equiangular polygon is doubled, the measure of each exterior angle is halved.
27. The measure of an exterior angle of a decagon is greater than the measure of an exterior angle of a pentagon.