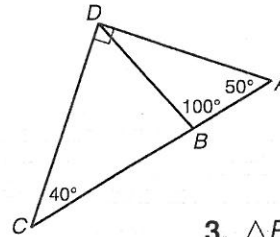


**LESSON**  
**4-1** **Practice B**  
**Classifying Triangles**

Classify each triangle by its angle measures.  
 (Note: Some triangles may belong to more than one class.)

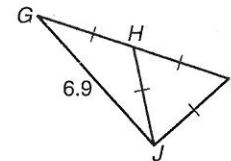


1.  $\triangle ABD$

2.  $\triangle ADC$

3.  $\triangle BCD$

Classify each triangle by its side lengths.  
 (Note: Some triangles may belong to more than one class.)

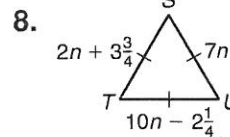
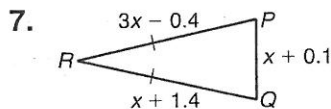


4.  $\triangle GIJ$

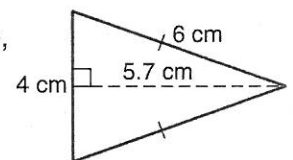
5.  $\triangle HIJ$

6.  $\triangle GHJ$

Find the side lengths of each triangle.



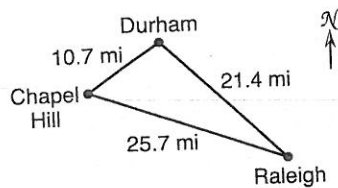
9. Min works in the kitchen of a catering company. Today her job is to cut whole pita bread into small triangles. Min uses a cutting machine, so every pita triangle comes out the same. The figure shows an example. Min has been told to cut 3 pita triangles for every guest. There will be 250 guests. If the pita bread she uses comes in squares with 20-centimeter sides and she doesn't waste any bread, how many squares of whole pita bread will Min have to cut up?



10. Follow these instructions and use a protractor to draw a triangle with sides of 3 cm, 4 cm, and 5 cm. First draw a 5-cm segment. Set your compass to 3 cm and make an arc from one end of the 5-cm segment. Now set your compass to 4 cm and make an arc from the other end of the 5-cm segment. Mark the point where the arcs intersect. Connect this point to the ends of the 5-cm segment. Classify the triangle by sides and by angles. Use the Pythagorean Theorem to check your answer.

**LESSON 4-2 Practice B**  
**Angle Relationships in Triangles**

1. An area in central North Carolina is known as the Research Triangle because of the relatively large number of high-tech companies and research universities located there. Duke University, the University of North Carolina at Chapel Hill, and North Carolina State University are all within this area. The Research Triangle is roughly bounded by the cities of Chapel Hill, Durham, and Raleigh. From Chapel Hill, the angle between Durham and Raleigh measures  $54.8^\circ$ . From Raleigh, the angle between Chapel Hill and Durham measures  $24.1^\circ$ . Find the angle between Chapel Hill and Raleigh from Durham.

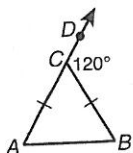


2. The acute angles of right triangle  $ABC$  are congruent. Find their measures.

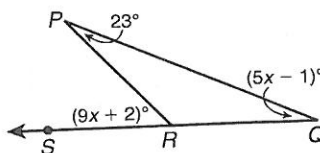
The measure of one of the acute angles in a right triangle is given. Find the measure of the other acute angle.

3.  $44.9^\circ$  \_\_\_\_\_ 4.  $(90 - z)^\circ$  \_\_\_\_\_ 5.  $0.3^\circ$  \_\_\_\_\_

Find each angle measure.



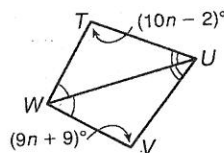
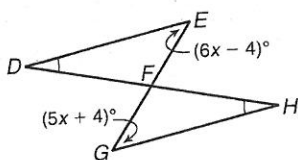
6.  $m\angle B$  \_\_\_\_\_



7.  $m\angle PRS$  \_\_\_\_\_

8. In  $\triangle LMN$ , the measure of an exterior angle at  $N$  measures  $99^\circ$ .  $m\angle L = \frac{1}{3}x^\circ$  and  $m\angle M = \frac{2}{3}x^\circ$ . Find  $m\angle L$ ,  $m\angle M$ , and  $m\angle LNM$ .

9.  $m\angle E$  and  $m\angle G$  \_\_\_\_\_ 10.  $m\angle T$  and  $m\angle V$  \_\_\_\_\_



11. In  $\triangle ABC$  and  $\triangle DEF$ ,  $m\angle A = m\angle D$  and  $m\angle B = m\angle E$ . Find  $m\angle F$  if an exterior angle at  $A$  measures  $107^\circ$ ,  $m\angle B = (5x + 2)^\circ$ , and  $m\angle C = (5x + 5)^\circ$ .

12. The angle measures of a triangle are in the ratio  $3 : 4 : 3$ . Find the angle measures of the triangle.