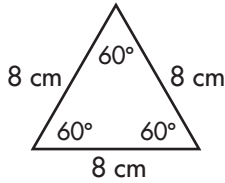


# Triangles

You can classify triangles by the lengths of their sides and the sizes of their angles.

**acute**  
all angles less than  $90^\circ$

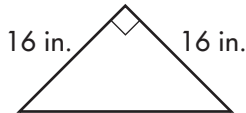


**equilateral**  
all sides the same length

This triangle is both equilateral and acute.

Not all acute triangles are equilateral.

**right**  
one right angle

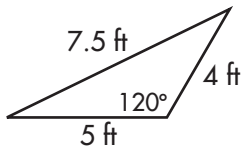


**isosceles**  
two sides the same length

This triangle is both isosceles and right.

Not all right triangles are isosceles.

**obtuse**  
one obtuse angle



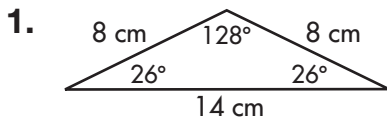
**scalene**  
no sides the same length

This triangle is both scalene and obtuse.

Not all obtuse triangles are scalene.

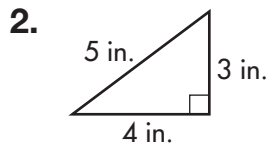
Remember that the sum of the measures of the angles of a triangle is  $180^\circ$ .

Classify each triangle by its sides and then by its angles.



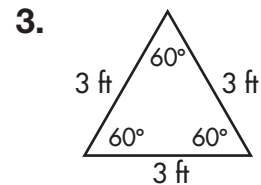
\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_



\_\_\_\_\_

\_\_\_\_\_

Classify the following triangles based on the angles given.

4.  $40^\circ, 100^\circ, 40^\circ$  \_\_\_\_\_

5.  $14^\circ, 98^\circ, 68^\circ$  \_\_\_\_\_

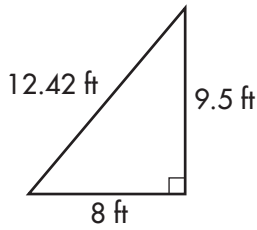
6.  $38^\circ, 38^\circ, 104^\circ$  \_\_\_\_\_

Name \_\_\_\_\_

# Triangles

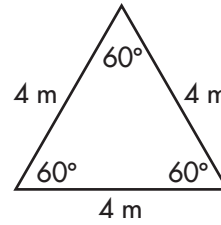
Classify each triangle by its sides and then by its angles.

1.



\_\_\_\_\_  
\_\_\_\_\_

2.



\_\_\_\_\_  
\_\_\_\_\_

Given the measures of the angles for a triangle, classify the triangle by angles.

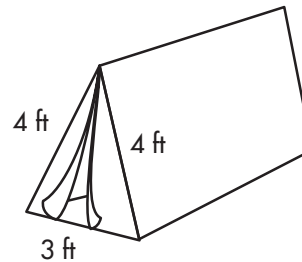
3.  $47^\circ, 62^\circ, 71^\circ$  \_\_\_\_\_

4.  $29^\circ, 90^\circ, 61^\circ$  \_\_\_\_\_

5.  $75^\circ, 75^\circ, 30^\circ$  \_\_\_\_\_

6.  $54^\circ, 36^\circ, 90^\circ$  \_\_\_\_\_

7. Judy bought a new tent for a camping trip. Look at the side of the tent with the opening to classify the triangle by its sides and its angles.



\_\_\_\_\_

8. Which describes a scalene triangle?

- A** 4 equal sides    **B** 3 equal sides    **C** 2 equal sides    **D** 0 equal sides

9. The lengths of two sides of a triangle are 15 in. each. The third side measures 10 in. What type of triangle is this? Explain your answer using geometric terms.

\_\_\_\_\_  
\_\_\_\_\_