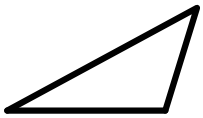
Classifying Triangles

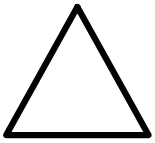
Classifying Triangles By Sides

Scalene - No sides are congruent



Isosceles - At least two sides are congruent

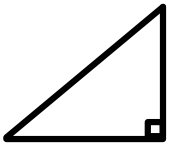
Equilateral - All sides are congruent



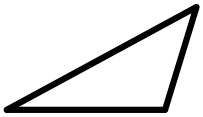
Classifying Triangles By Angles

Acute - All angles are acute

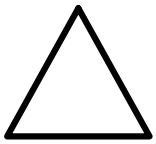
Right - One angle is right



Obtuse - One angle is obtuse

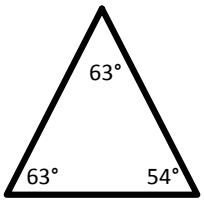


Equiangular - All angles are congruent



Directions: Classify the triangle by its angles and by its sides.

1.



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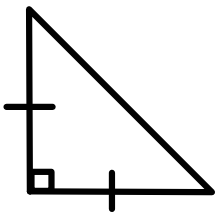

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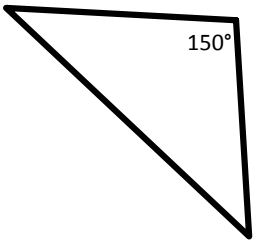

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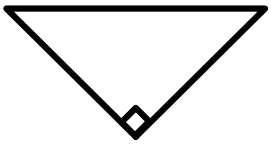

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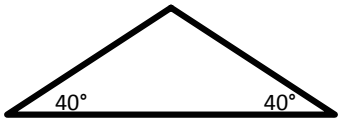

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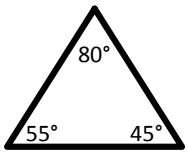

Directions: Complete the statement using *always*, *sometimes* or *never*.

7. An isosceles triangle is _____ an equilateral triangle.

8. An obtuse triangle is _____ an isosceles triangle.

9. The acute angles of a right triangle are _____ complementary.

10. A triangle _____ has a right angle and an obtuse angle.

11. $\triangle ABC$ is an isosceles triangle and $\measuredangle B$ is the vertex. Find the length of each side if $AB = 3x + 10$, $BC = 4x - 4$ and $AC = 6x$.

12. $\triangle HOT$ is an equilateral triangle. Find the length of each side if $HO = \frac{1}{2}(x+4)$ and $HT = 1.5x - 4$.

13. If $A(-1,3)$, $B(18,1)$ and $C(2,-5)$, determine if $\triangle ABC$ is a right triangle.