

## 7.3 Triangles p.284

$\angle ABC = \text{angle } ABC$

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You can use side lengths and angle measures to classify triangles.

**Angles:** arcs can indicate congruent angles

Right  $\triangle$ : has one right angle (other 2 are acute)

Obtuse  $\triangle$ : has one obtuse angle (other 2 are acute)

Acute  $\triangle$ : has 3 acute angles

\* Equiangular  $\triangle$ : has 3 congruent angles (each one is  $60^\circ$ )

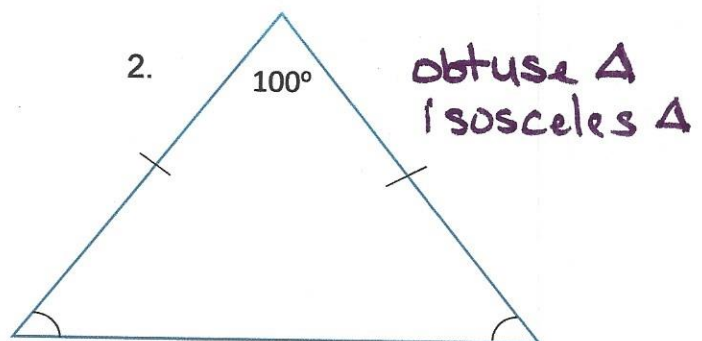
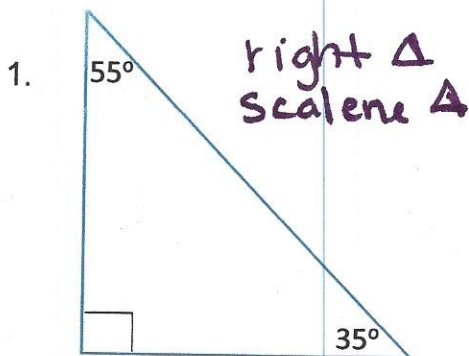
**Sides:** tic marks indicate congruent sides

Scalene  $\triangle$ : no congruent sides

Isosceles  $\triangle$ : 2 congruent sides

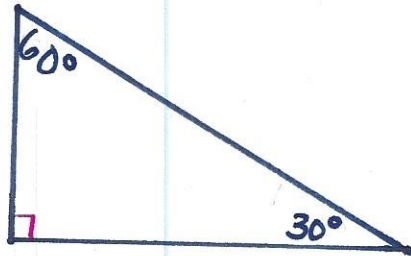
\* Equilateral  $\triangle$ : 3 congruent sides

Classify each triangle:



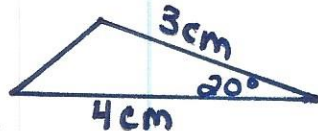
Construct (draw) the following triangles (hint: it is easier to begin with the largest measurements.) – **MUST LABEL GIVEN DIMENSIONS.**

1. Construct and label a triangle that has  $30^\circ$ ,  $60^\circ$ ,  $90^\circ$  angles.



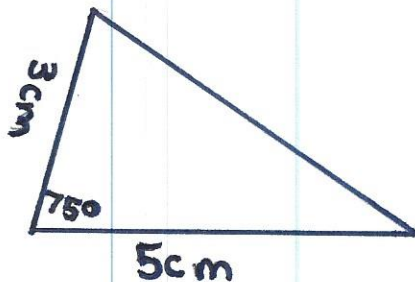
2. Construct and label a triangle that has 3 cm and 4 cm sides that meet at a  $20^\circ$  angle.

SAS



3. Construct and label a triangle that has a 3 cm side and a 5 cm side that meet at a  $75^\circ$  angle.

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4. Construct and label a triangle w/angle measures of  $35^\circ$ ,  $45^\circ$ , and  $100^\circ$ . **Then classify the triangle.**

Obtuse  $\Delta$   
Scalene  $\Delta$

