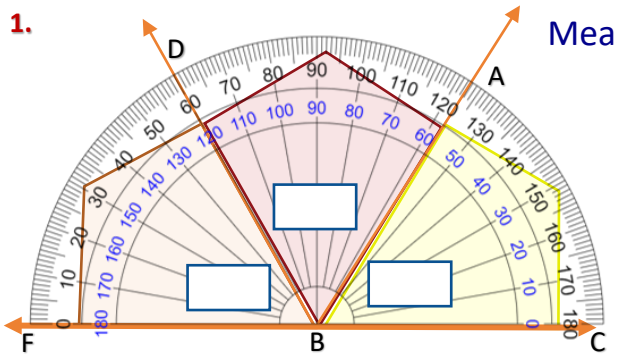
Lesson # 40

Classifying Triangles

Date

Warmup

1.



Measure and Classify each angle.

<ABC = _____

_____

<ABD = _____

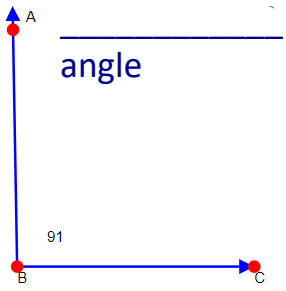
_____

<DBF = _____

_____

2.

<ABC is a(n) _____ angle



3. Write the word for each definition:

_____ Two or more angles whose sum is 180°

_____ Equal in measure

_____ An angle with a measurement of 90 degrees

_____ An angle with a measurement of exactly 180 degrees

_____ Two or more angles whose sum is 90°

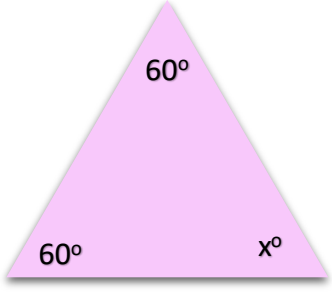
_____ A polygon with three sides

_____ An angle with a measurement less than 90°

_____ An angle with a measurement greater than 90° and less than 180°

_____ A simple closed figure in a plane formed by three or more line segments.

I. Angles of a Triangle



Angles of a Triangle:

The sum of the angles of a triangle is 180°

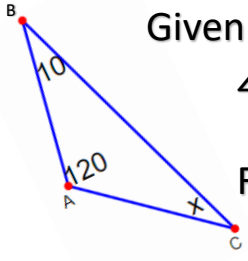
4. Triangle ABC is not drawn to scale.

Given: Triangle ABC

∠A = 120

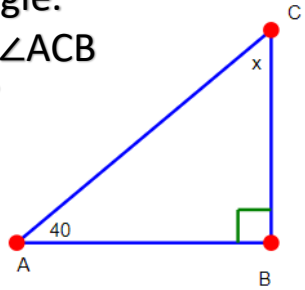
∠B = 10

Find: ∠C



5. ∠ ABC is a right angle.

Find the measure of ∠ACB given that ∠CAB=40°



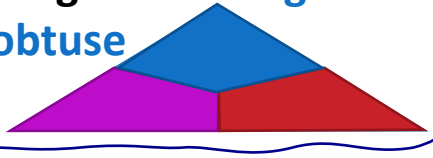
6-8.

I. Classifying Triangles by their angles

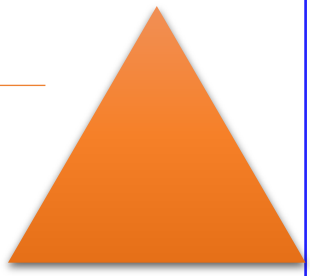
Acute Triangle:
A triangle with three acute angles.

Right Triangle: **A triangle with one right angle.**

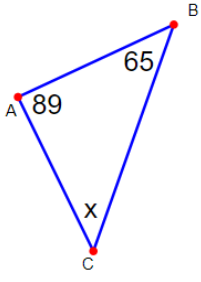
Obtuse Triangle: **A triangle with one obtuse angle.**



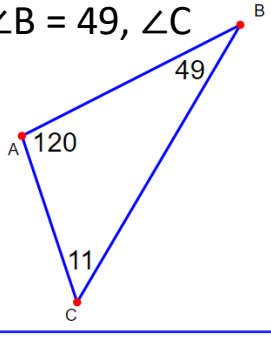
Classify the triangles by their angles:



9. Triangle ABC is not drawn to scale.
Given: Triangle ABC
∠A = 89
∠B = 65
Find: ∠C
Classify the triangle



10. Given: Triangle ABC, ∠B = 49, ∠C = 11, and ∠A = 120
Classify the triangle



11-13

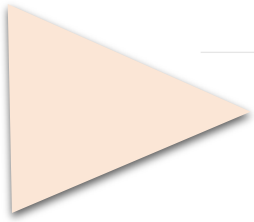
III. Classify Triangle by their sides

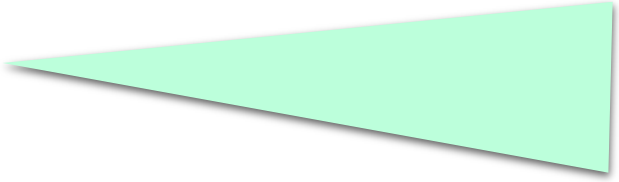
Scalene Triangle: A triangle with three sides of unequal measurement

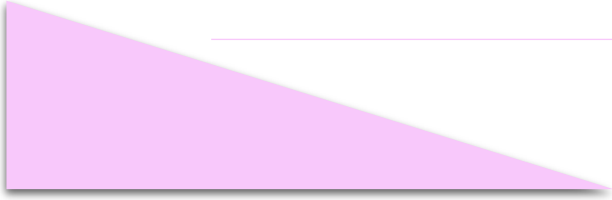
Isosceles Triangle: A triangle with two congruent sides

Equilateral Triangle: A triangle with (all) three congruent sides

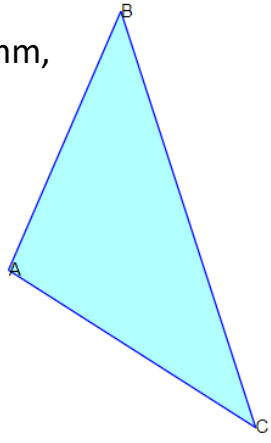
Classify the triangles by their sides:



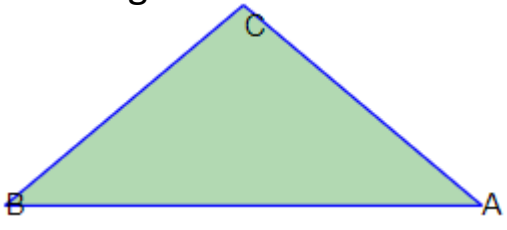




14. Given: Triangle ABC
AC=5780 mm, BC=28615 mm, and AB =4946 mm
Classify the triangle using the lengths of the sides.



15. Given: Triangle ABC
AC=5 inches, BC=5 inches, and AB =28 inches
Classify the triangle.



16-18

IV. Practice

19	20
21	22
23	24