Accel Precalc   Notes: Law of Cosines   Name _____
Unit 8: Extended Trigonometry
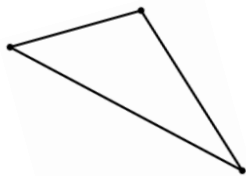Lesson 2: Law of Cosines

EQ:

Two Methods to Solve "Oblique Triangles":

- _____
- _____   If a problem refers to _____ _____ and an

                                _____ _____ use Law Of Cosines.

Use the Following Cases for Law of Cosines:

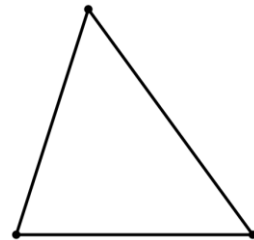   I.   _____ --- _____

   II.   _____ --- _____
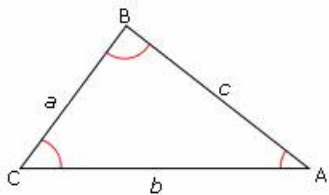
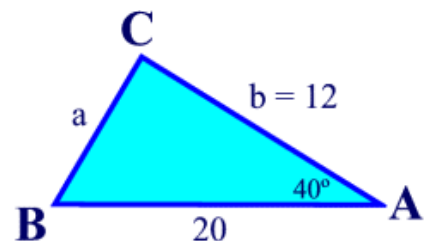Case I: Case II:
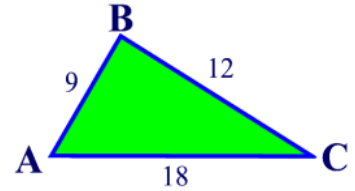
Formulas for Law of Cosines:

_____ = _____

_____ = _____

_____ = _____

Ex 1. Given side b = 12, side c = 20 and m∠A = 40°. Find the length of side *a* to the *nearest integer.*

Ex. 2 Find the measure of the largest angle, to the *nearest tenth of a degree*, of a triangle whose sides are 9, 12, and 18.

Ex. 3 In a parallelogram, the adjacent sides measure 40 cm and 22 cm. If the larger angle of the parallelogram measure 116°, find the length of the longer diagonal, to the *nearest integer*.
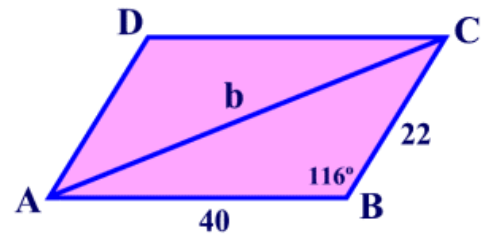
Ex. 4 A surveyor wishes to find the distance between two inaccessible points *A* and *B* on opposite sides of a lake. While standing at point *C*, she finds that *AC* = 259 m, *BC* = 423 m, and angle *ACB* measures 132°40′. Find the distance *AB*.
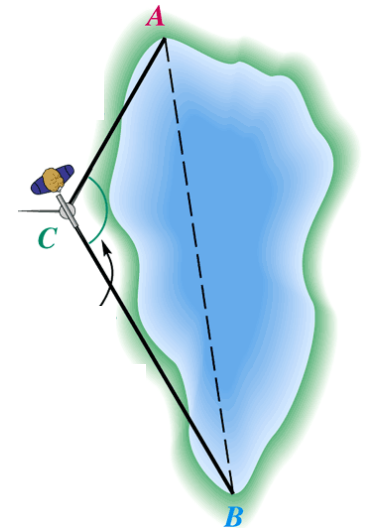
Assignment: Practice Worksheet #3; Practice Worksheet #4; Practice Worksheet #5