

Name: _____ Hour: _____ Date: _____

NOTES: Section 13.6 – Apply the Law of Cosines

Goals: #1 - I can solve a triangle using the Law of Cosines.

#2 - I can use Heron's area formula to find the area of a triangle when given 3 side lengths.

Homework: Lesson 13.6 Worksheet



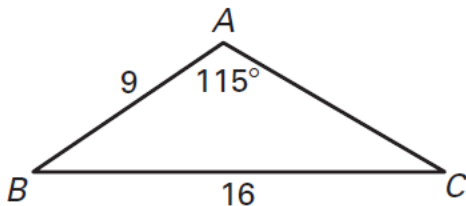
Warm Up:

1. Solve $\triangle ABC$. Round answers to the nearest tenth.

a. $A = 112^\circ, a = 24, B = 29^\circ$

b. $A = 96^\circ, a = 16, b = 7$

2. Find the area of $\triangle ABC$.



Review:

We can use _____ for triangles in the following cases:

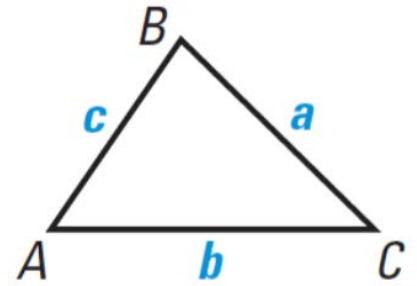
- _____:
- _____:
- _____:

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Notes:

How do we solve _____ in other cases?

- _____:
-
-
-



This can be used to _____ triangles in the following cases:

- _____:
- _____:

Example #1: Solve $\triangle ABC$ with $a = 11$, $c = 14$, and $B = 34^\circ$

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Example #2: Solve $\triangle ABC$ with $a = 12$, $b = 27$, and $c = 20$

You practice: Solve $\triangle ABC$ with $a = 22$, $b = 15$, and $C = 108^\circ$

You practice: Solve $\triangle ABC$ with $a = 19$, $b = 26$, and $c = 31$

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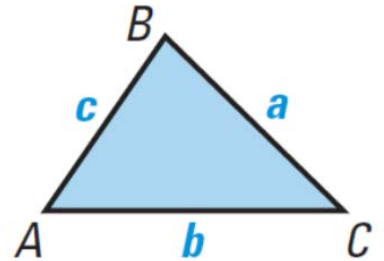
Notes:

_____:

When only given the _____ lengths of a triangle, we can still find the _____ of $\triangle ABC$.

• Area =

○ where $s =$



Example #3: A triangular path around an exhibit at the zoo is shown. Find the area of the exhibit.

