

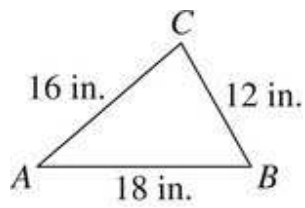
Area of Triangles
Sections 6.1 and 6.2

Warm-up

1. Solve: $\sin A = 0.33333$

2. Solve the triangles:

a)



b)



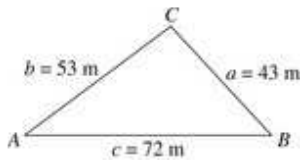
Heron's Area Formula for Triangles

Heron's Area Formula is based on the law of cosines and is used to find the area of a triangle when _____.

<p>Heron's Area Formula</p>

Area of Triangles Sections 6.1 and 6.2

Example 1: Find the area of the triangle.



Practice Problem 1: Find the area of the triangle having sides of lengths 5 feet, 9 feet, and 8 feet.

Formulas for Area of a Triangle

1. **Standard Formula:**

2. **Oblique Triangle:**

3. **Heron's Area Formula:**

Follow-up Problem

1. p.418/49: On a map, Minneapolis is 165 mm due west of Albany, Phoenix is 216 mm from Minneapolis, and Phoenix is 368 mm from Albany.



- a) Find the bearing of Minneapolis from Phoenix.

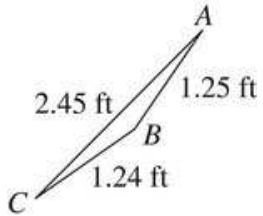
- b) Find the bearing of Albany from Phoenix.

Area of Triangles
Sections 6.1 and 6.2

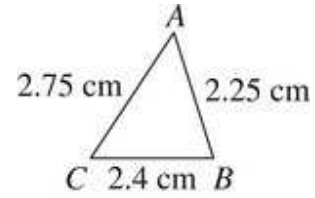
Class Work

Find the area of the following triangles.

1.



2.



3. $C = 110$ degrees, $a = 6$, $b = 10$

4. $B = 130$ degrees, $a = 92$, $c = 30$

Solve the triangles.

5. $A = 58^\circ$, $a = 11.4$, $b = 12.8$

6. $a = 8$, $c = 5$, $B = 40^\circ$