

Area of Oblique Triangle using Sine

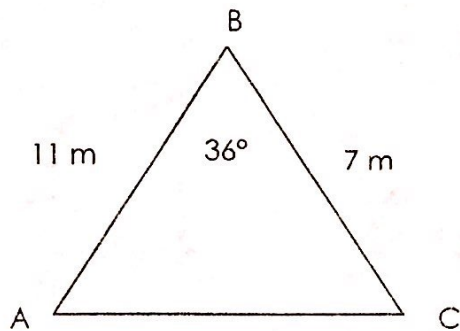
** Oblique triangles are triangles without a right angle.

** Use when you are given SAS.

$$\text{Area} = \frac{1}{2} \cdot \text{side 1} \cdot \text{side 2} \cdot \sin(\text{included angle})$$

Ex: Find the area. Round to the nearest tenth.

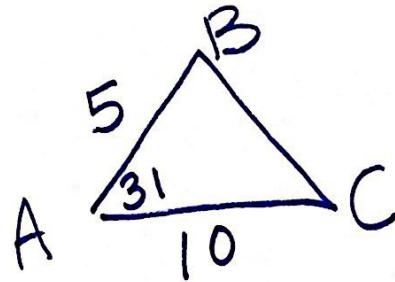
1.



$$A = \frac{1}{2} (11)(7) \sin(36)$$

$$A = 22.6 \text{ m}^2$$

2. In ABC, $m\angle A = 31^\circ$, $b = 10 \text{ m}$, $c = 5 \text{ m}$



$$A = \frac{1}{2} (10)(5) \sin 31$$

$$A = 12.9 \text{ m}^2$$