

Answer on Question #80731 – Math – Geometry

Question

Find the area of the triangle with the given measurements. Round the solution to the nearest hundredth if necessary.

$$B = 104^\circ, a = 11 \text{ cm}, c = 18 \text{ cm}$$

Solution

The area of a triangle is given by the formula

$$S_{\Delta} = \frac{1}{2} \cdot a \cdot c \cdot \sin B;$$

$$S_{\Delta} = \frac{1}{2} \cdot 11 \text{ cm} \cdot 18 \text{ cm} \cdot \sin 104^\circ \approx 96.06 \text{ (cm}^2\text{)}.$$

Answer: 96.06 cm².