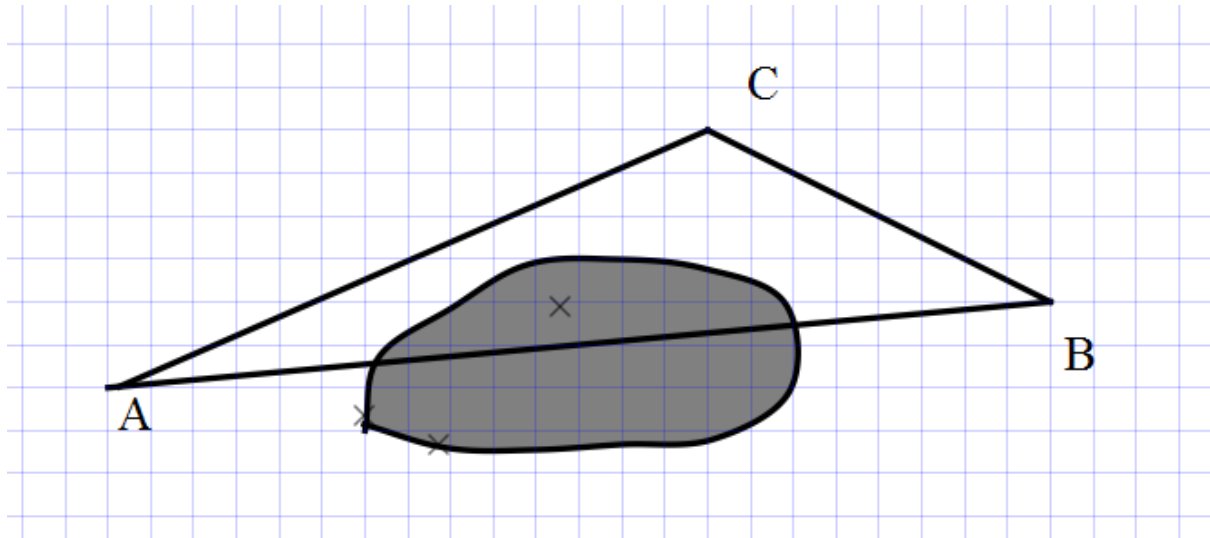


Question #77645, Math / Trigonometry



Solution:

$$AC = 800 \text{ ft}, \angle CAB = 46^\circ; \angle CBA = 38^\circ \Rightarrow \angle ACB = 180^\circ - (38^\circ + 46^\circ) = 96^\circ ;$$

$$\text{Applying sin theorem to the triangle ABC } \frac{AC}{\sin \angle CBA} = \frac{AB}{\sin \angle ACB} ; \text{ hence } AB = \frac{AC \times \sin \angle ACB}{\sin \angle CBA} =$$

$$\frac{800 \times 0.9945}{0.6157} = 1292.19 \text{ (ft)}$$

Answer:  $AB = 1292.19 \text{ ft}$

Answer provided by <https://www.AssignmentExpert.com>