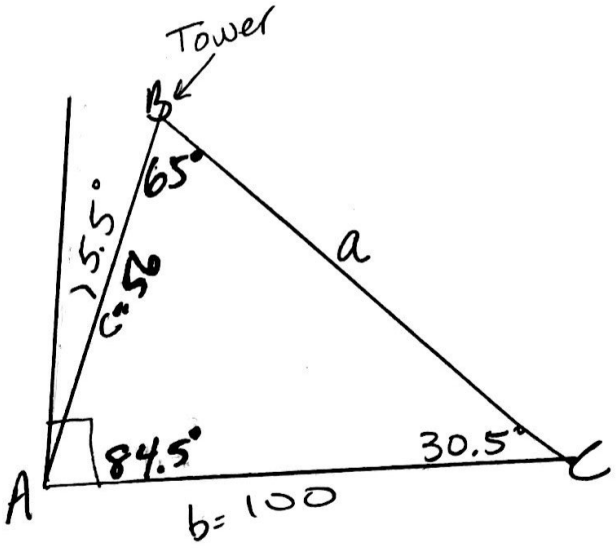
Warm-up: Applications 2

The leaning tower of Pisa is inclined 5.5 degrees from the vertical. At a distance of 100 meters from the wall of the tower, the angle of elevation to the top is 30.5 degrees. Use the law of sines to estimate the height of the leaning tower?

Round to the nearest tenth.

LOS
AAS
ASA
SSA



1) $90° - 5.5° = 84.5°$

2) $180 - 84.5 - 30.5 = 65°$

3) $\frac{b}{\sin B} = \frac{c}{\sin C}$

$\frac{100}{\sin 65} = \frac{c}{\sin 30.5}$

$\frac{\sin 30.5 (100)}{\sin 65} = c$

$c = 56\ m$