## Think Trig!

## Question \#1

What is the area of a triangle with $a=10.2 \mathrm{~cm}, \mathrm{~b}=12.8 \mathrm{~cm}$ and $<\mathrm{C}=83^{\circ}$ ?

## Question \#2

Susan looks up to the top of a 20 m pole with an angle of elevation of $15^{\circ}$. Ben looks up to the top of the same pole with an angle of elevation of $23^{\circ}$. Mackenzie watches, in awe, and observes that Ben and Susan are standing exactly 12 m apart. Find the angle at the base of the pole.


## Question \#3

Marty sights the top of a building at an angle of elevation of $20^{\circ}$. From a point 30 m closer to the building, the angle of elevation is $35^{\circ}$. Find the height of the building.

