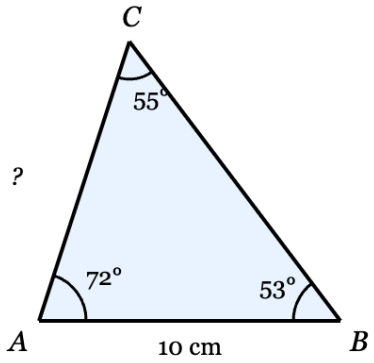
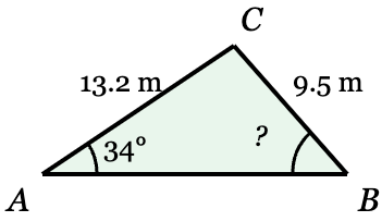
Sine Law

Recall: $\dfrac{a}{\sin A} = \dfrac{b}{\sin B} = \dfrac{c}{\sin C}$ *or* $\dfrac{\sin A}{a} = \dfrac{\sin B}{b} = \dfrac{\sin C}{c}$

1. Find the length of side AC in the triangle below. Round to one decimal place.



2. Find the measure of angle B in the triangle below. Round to the nearest whole degree.



3. Two forest fire lookout towers, A and B, are 15 km apart. A ranger at tower A spots a fire at point F. The angle between line AB and line AF is $58°$. A ranger at tower B also spots the fire. The angle between line BA and line BF is $67°$.

   a) Sketch and label a diagram. Mark all given angles and the known side.

   b) How far is the fire from tower A? Round to the nearest tenth of a kilometre.