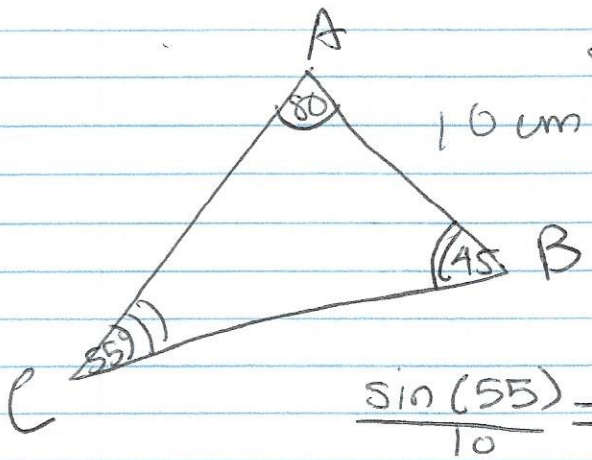
Given Triangle ABC where $m\angle A = 80°$, $m\angle B = 45°$, $c = 10$ cm



Solve the triangle

$m\angle C = 55°$

law of sines:

$$\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$$

$$\frac{\sin(55)}{10} = \frac{\sin(80)}{a} \qquad a = \frac{\sin(80)\cdot 10}{\sin(55)}$$

$$\frac{\sin(55)}{10} = \frac{\sin(45)}{b} \qquad b = \frac{\sin(45)\cdot 10}{\sin(55)}$$

$a = 12.02$

$b = 8.63$