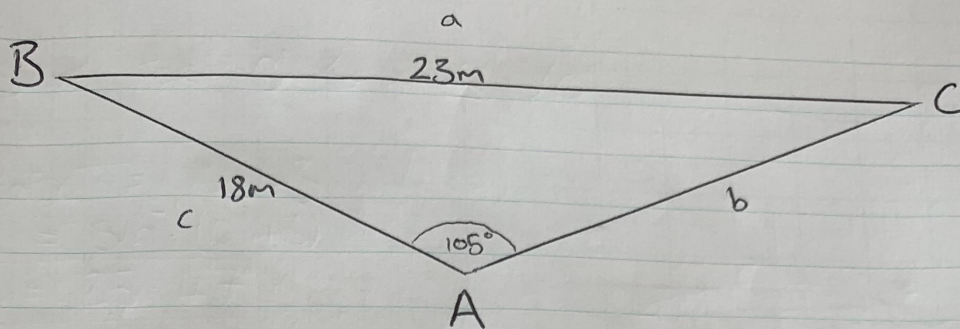


3



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

~~$\frac{\sin(105)}{23} \times 18 = \sin(C)$~~ $\frac{\sin(105)}{23} \times 18 = \sin(C)$

~~$\frac{0.966}{23} \times 18 = \sin(C)$~~ $\sin(C) = 0.756$
 $\sin^{-1}(0.756) = 49.11^\circ$

ANGLE C = 49.11°

ii) **$180 - 105 - 49.11 = 25.89^\circ$**

iii) $AC^2 = 23^2 + 18^2 - 2(23)(18) \cos 105$

$1067 - 30$

$AC = 32.67^\circ$