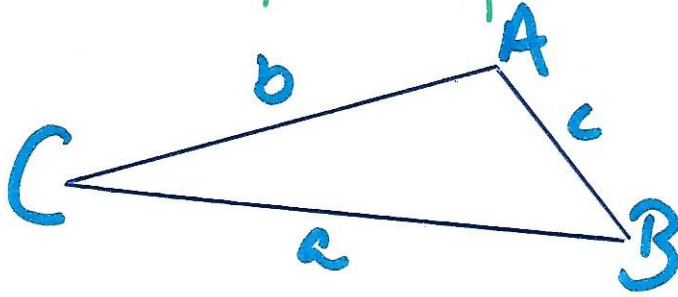


SINE & COSINE RULE & AREA OF A TRIANGLE

To find missing sides & and angles in a
NON - RIGHT-ANGLED TRIANGLE



**VERY IMPORTANT
TO LABEL TRIANGLE**

A opposite side a
B opposite side b
C opposite side c

SINE RULE

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

this formula is given to you

to find an angle $\frac{\sin A}{a} = \frac{\sin B}{b} = \frac{\sin C}{c}$

COSINE RULE

to find a side $a^2 = b^2 + c^2 - 2bc \cos A$
this formula is given to you

to find an angle you need to be able to rearrange OR remember

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc}$$

It is easy to use both formulas, just make sure you have labelled triangle correctly & use correct values

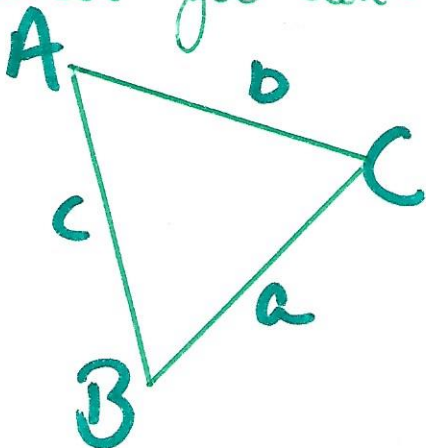
WHICH FORMULA DO YOU USE?

SINE RULE when 2 angles & 2 sides involved

COSINE RULE when 1 angle & 3 sides involved

AREA OF A TRIANGLE

when you don't know the perpendicular height



$$\text{Area} = \frac{1}{2} ab \sin C$$

this formula is given to you

As above label sides & angles correctly & just substitute values into calculator.