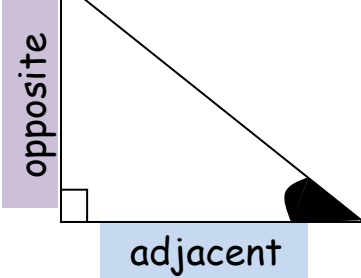
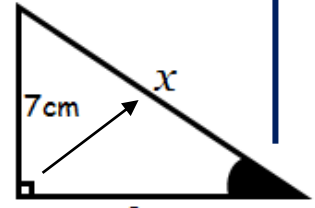


label the sides of the triangle



$A^2 + B^2 = C^2$

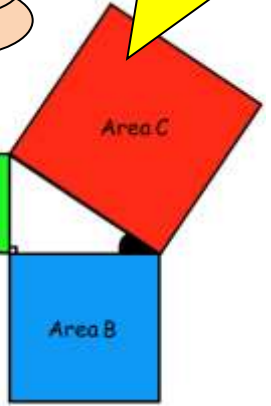


Pythagoras' Theorem

$x^2 = 9^2 + 7^2$
 $x^2 = 81 + 49$
 $x^2 = 130$
 $x = \sqrt{130} = 11.4$

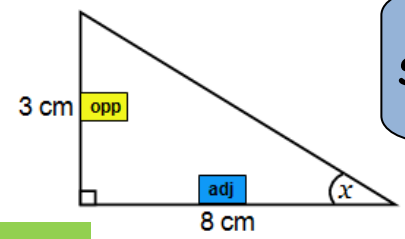
Finding a side
 $\tan A = \frac{\text{opp}}{\text{adj}}$
 $\tan 35^\circ = \frac{x}{8}$
 $8 \times \tan 35^\circ = x$
 $5.6016603 = x$
 $5.6 \text{ cm} = x$

$\sin A = \frac{\text{opp}}{\text{hyp}}$
 $\sin 36^\circ = \frac{11}{x}$
 $x = \frac{11}{\sin 36^\circ}$
 $x = 18.7 \text{ cm}$



hypotenuse - **ADD!**
shorter side - **SUBTRACT!**

Trigonometry

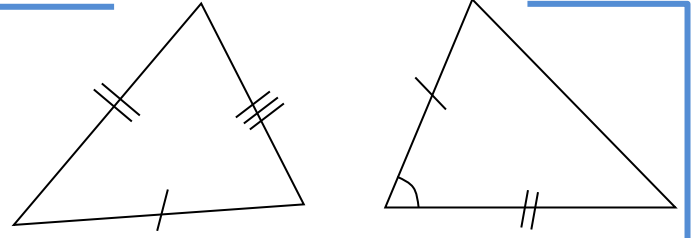
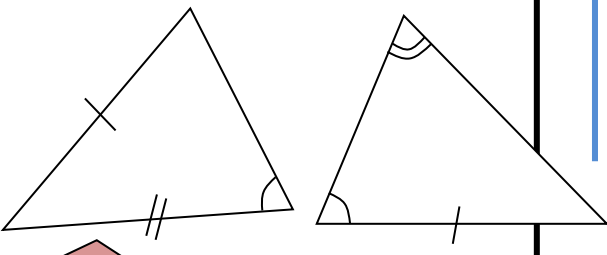


$\sin = \frac{\text{opp}}{\text{hyp}}$

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

The Sine Rule

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



$a^2 = b^2 + c^2 - 2bc \cos A$ (sides)

The Cosine Rule

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

Finding an angle
 $\tan x = \frac{\text{opp}}{\text{adj}}$
 $\tan x = \frac{3}{8} = 0.375$
 $x = \tan^{-1} 0.375$
 $x = 20.556045$
 $x = 20.6^\circ$

$\cos = \frac{\text{adj}}{\text{hyp}}$

$\tan = \frac{\text{opp}}{\text{adj}}$

Remember to use the formula page on your exam paper!

Area of a triangle = $\frac{1}{2} ab \sin C$