

TRIGONOMETRY	HOW TO ... ?	Y 10
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- **Draw a diagram** (if it is a 3D problem, it is often useful to go back to 2D by drawing only part of the situation, like only a triangle of interest or only what you see from above. Then work from this diagram which illustrates a 2D situation.)
- **Write on it all the relevant information**
- **Give a name to the quantity you are looking for and add it to your diagram**

then :

<i>In order to ...</i>	<i>... you may use ...</i>
... find a side in a right angled triangle	<ul style="list-style-type: none"> • All the methods that work in any triangle and • Pythagoras' s theorem • SOH CAH TOA
... find an angle in a right angled triangle	<ul style="list-style-type: none"> • All the methods that work in any triangle and • SOH CAH TOA and then \sin^{-1}, or \cos^{-1} or \tan^{-1} the calculator gives you the result (SHIFT cos...)
... solve a problem involving bearings	<ul style="list-style-type: none"> • Draw a diagram • To draw a bearing <i>from A</i>, first draw on a compass rose <i>centred at A</i>. Then draw the bearing. Remember that bearings are measured from the North, turning clockwise) • Alternate angles on parallel lines are equal (Z shape) • co-interior angles • all the "right angled triangle tools."
... find an angle in a triangle (not necessarily right angled)	<ul style="list-style-type: none"> • the cosine rule, if you know 3 sides. • the sine rule, if you know two sides and another angle. • Angles in a triangle add up to 180°, if you know or can determine 2 angles. • Alternate angles on parallel lines are equal (Z shape) • co-interior angles
... find a side in a triangle (not necessarily right angled)	<ul style="list-style-type: none"> • the cosine rule, if you know 2 sides and the angle between them • the sine rule, if you know two angles and another side.