**Ch2 Trigonometry**

**Prior Knowledge**

HYP note: the hyp. must be the "letter by itself"

regardless of the letters used in the question

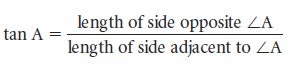
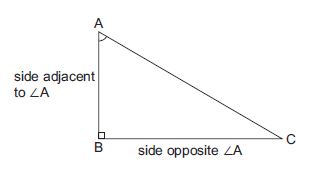
**1) Pythagorean Theorem**

**2) Labeling a triangle**

ALWAYS label the side opposite or across

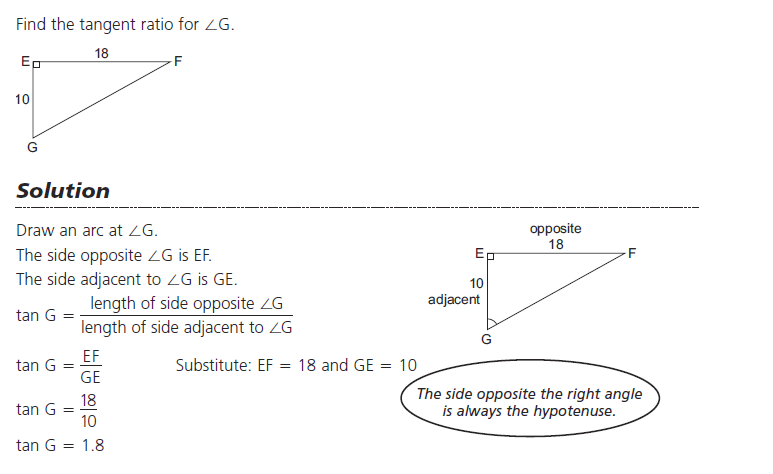
from the right angle first, LABEL FIRST!

hypotenuse

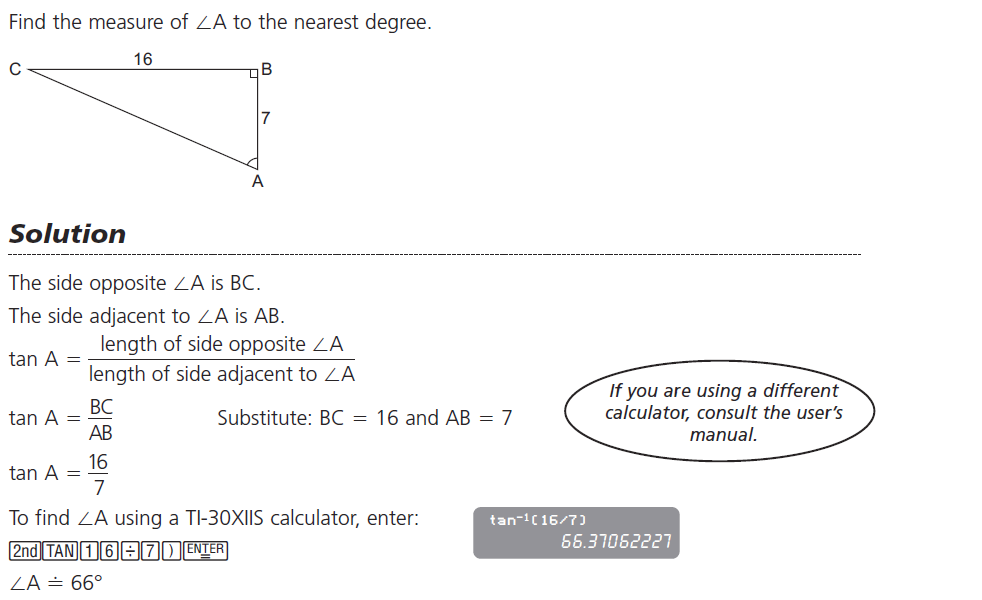


**2.1 The Tangent Ratio** – a ratio is another word for a fraction. So, the Tangent Ratio is a comparison of two sides of a right triangle.

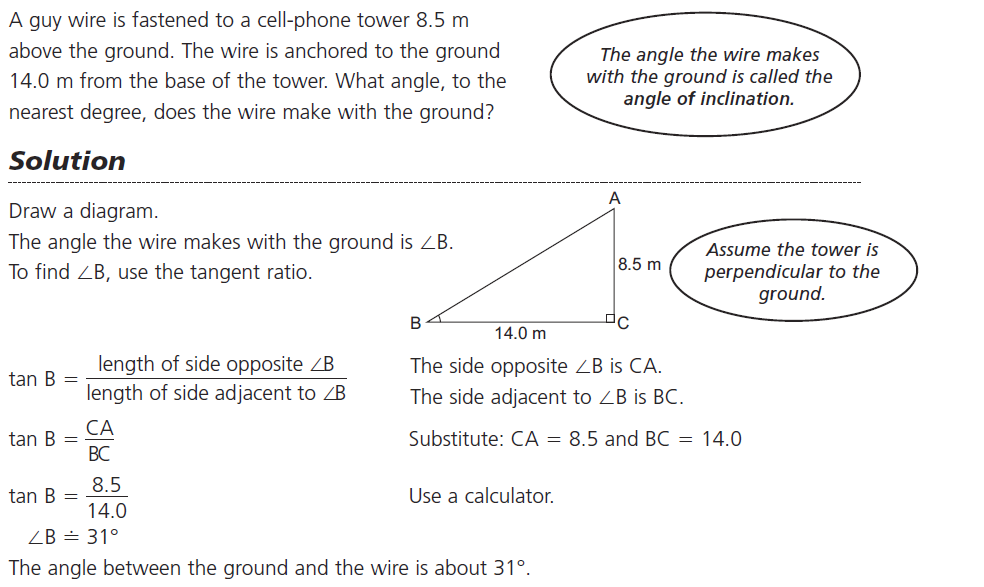
**Ex1.**



**Ex2.** To find the measure of this acute angle we need to know 2 sides of the triangle.



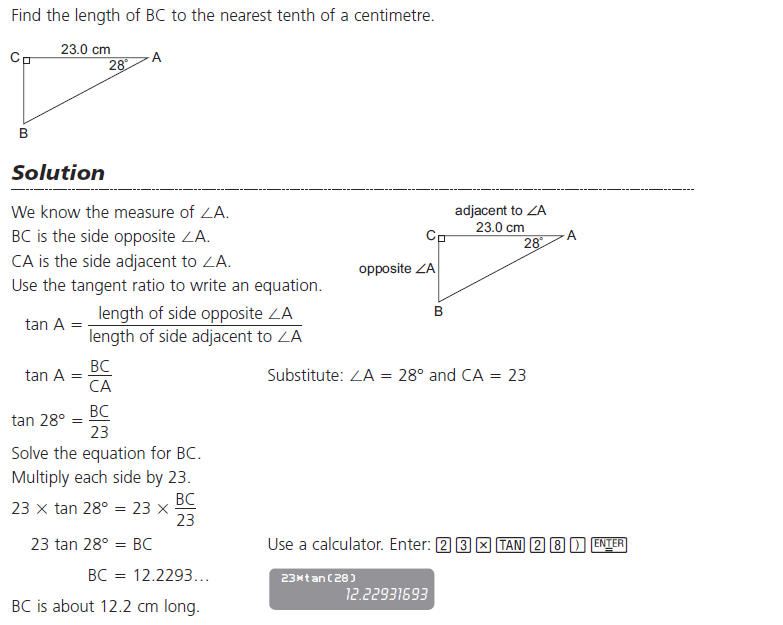
**Ex3.** – Using the Tangent Ratio to solve a problem for an angle.



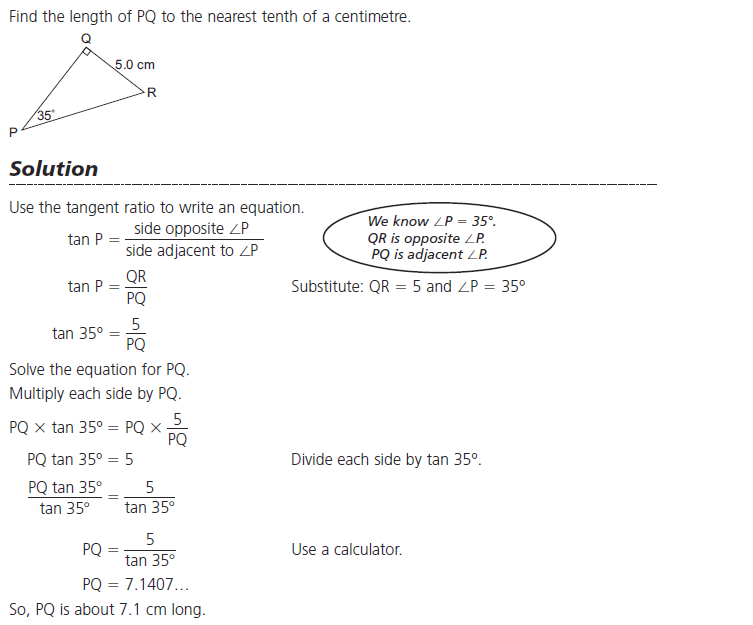
*Do Qn's p.88 #1-3*

**2.2 Using the Tangent Ratio to find Lengths** – Any Trig Ratio includes an angle and 2 sides. So, to solve for a side we need the other 2 things. Which is an acute angle and a side.

**Ex1.**

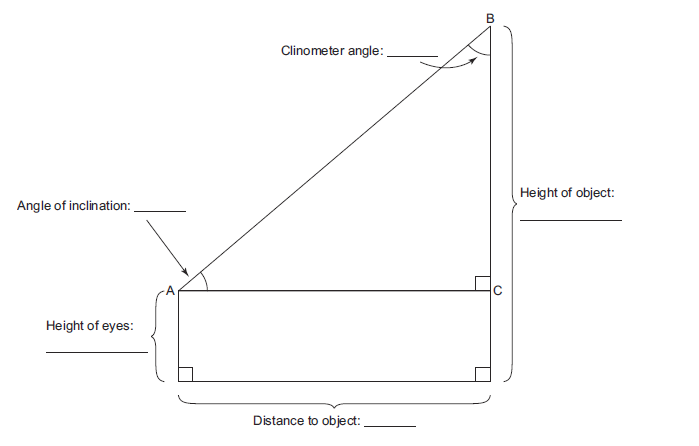


**Ex2.** – A slightly more difficult Qn is when you are solving for the side which is in the denominator, with the Tangent Ratio this means you're finding the Adjacent side.

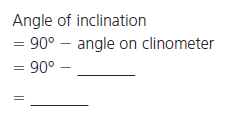
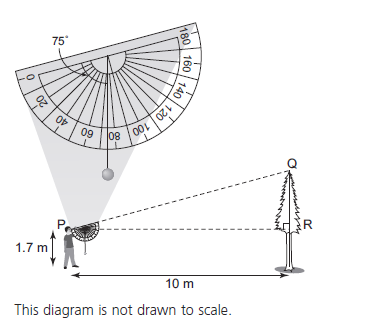


*Do Qn's p.88 #4&5*

**2.3 Measuring an inaccessible height** – if by chance you see a Qn on the Provincial exam, it would have to do which how to read a "Clinometer"

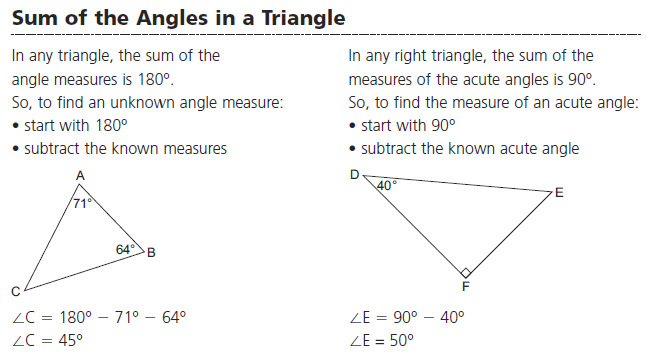


**Ex.**

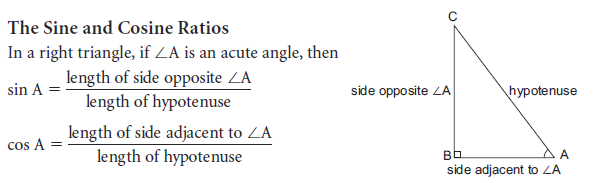


**2.4 The Sine and Cosine Ratios** – will be used to find both Angles and sides of a Right Triangle.

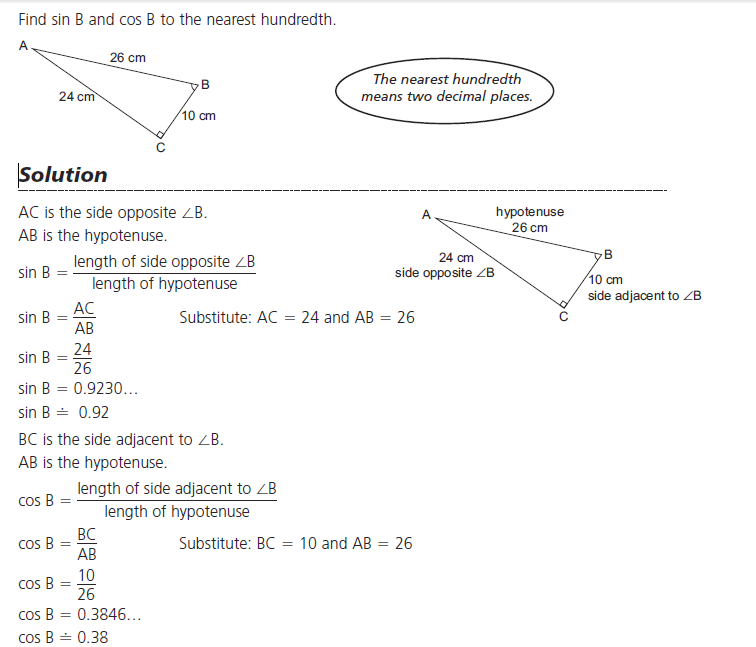
**Prior Knowledge**



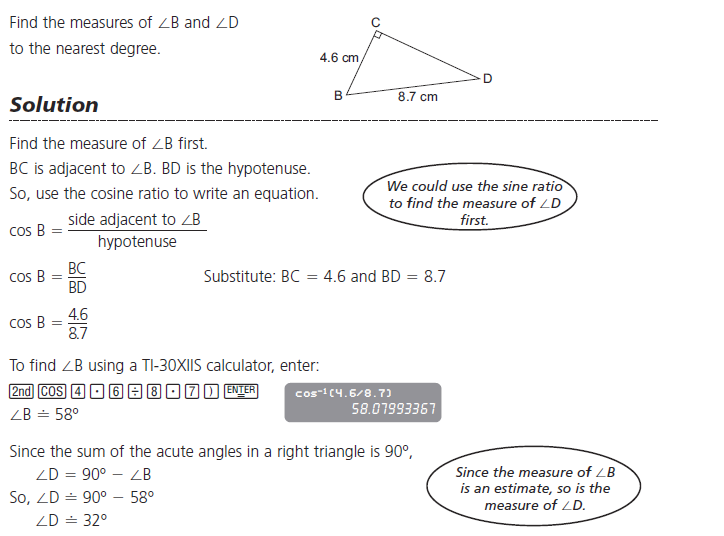
**From Your Formula Sheet**



Ex1. Leave your answer as a fraction or decimal, not asking for the angle measurement.



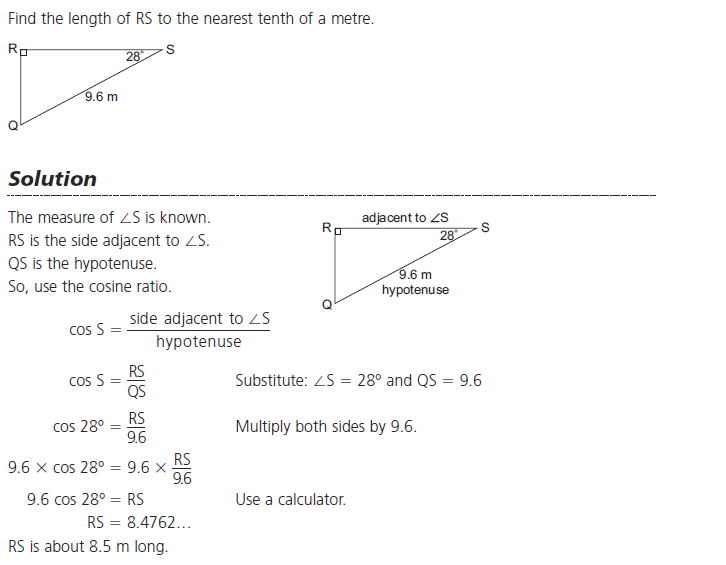
Ex2. Find the Measure of the Angle.



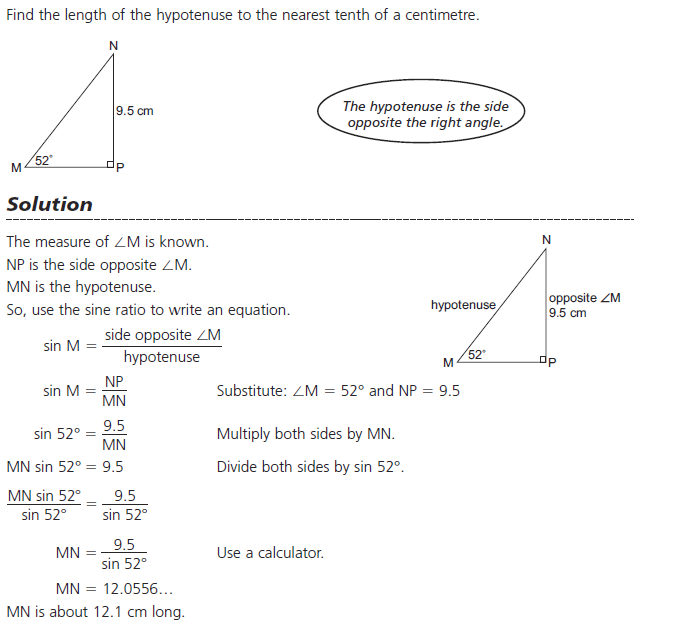
*Do Qn's p.104 #1-3*

**2.5 Using Sine and Cosine to find Side Lengths**

Ex1.

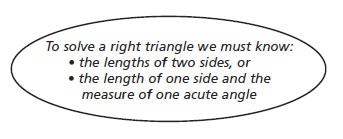


Ex2.

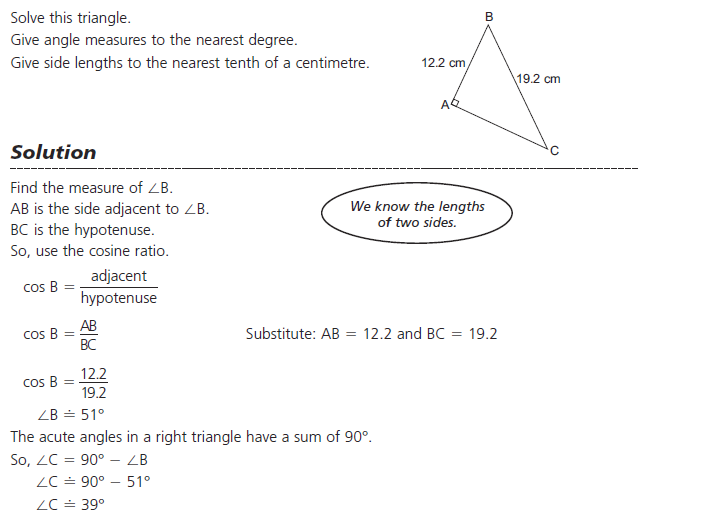


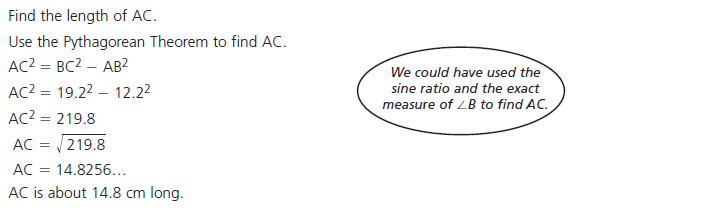
*Do Qn p.104 #4&5*

**2.6 Applying the Trig. Ratios** – now we are using all the trig. Ratios (sine, cosine, and tangent) and solving a Right Triangle which means finding all sides and acute angles.



**Ex1.**



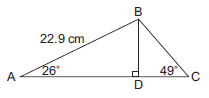


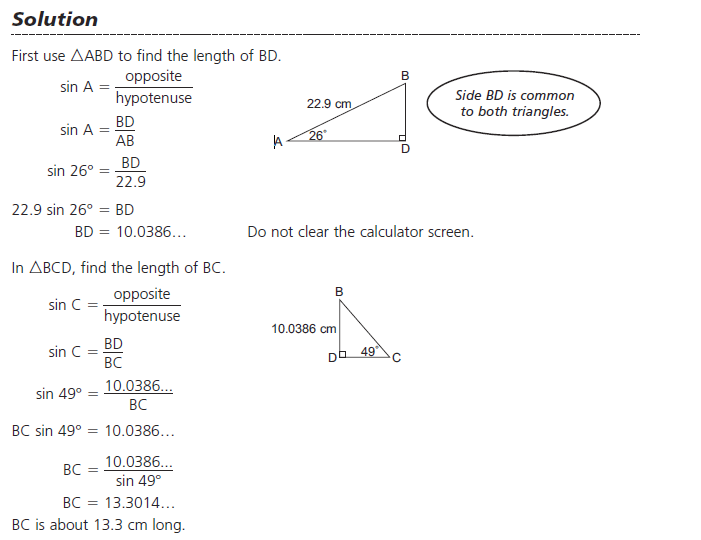
*Do Qn p.111 #3*

**2.6 Solving Problems Involving one or more Right Angle Triangles** – Solving Qn's like these usually involve exploiting the fact that the two triangle have a common or shared side.

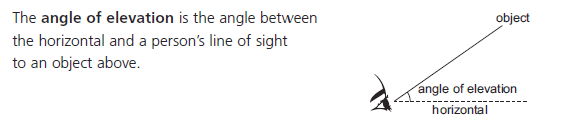
**Ex1.**

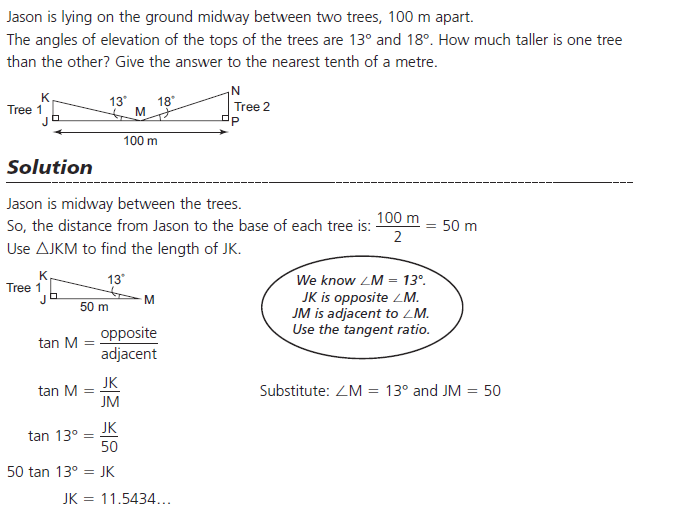


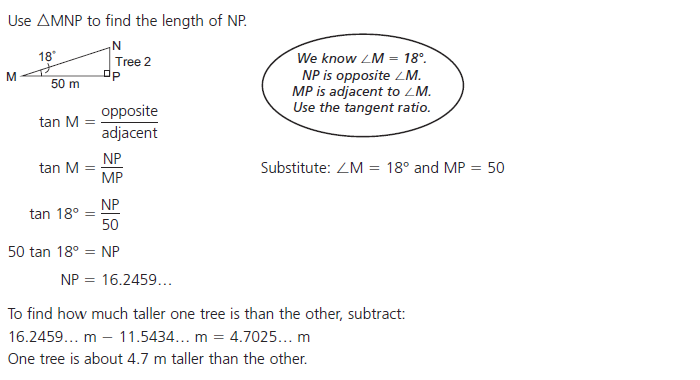




**Ex2.** Solving Problems involving an Angle of Elevation







*Do Qn p.118 #3*

**Chp 2 Study Guide**

