

Thus far we have been using trig ratios (sine, cosine, and tangent) to solve for missing variables in right triangles. We can however, use trig ratios to solve for missing _____ within the triangles.

With the help of our calculator we can find angles. Look closely on your calculator and try and identify the following buttons

 Sin^{-1} Cos^{-1} Tan^{-1}

To use these buttons you will have to press shift or the 2nd Function or Inverse button first then the trig function.

*Always round off the degree to the nearest whole number.

Practice: Find the angles from the following:

$\sin A = 0.2546$

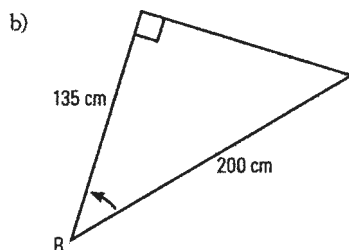
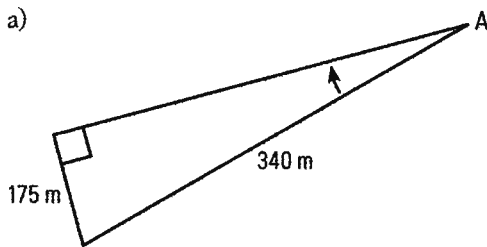
$\cos B = 0.1598$

$\tan C = 3.2785$

We can now look at how to solve for angles in triangles. Remember **SOHCAHTOA**

Example 1

Find the angle indicated in the pictures below:



Example 2

Determine the angle of elevation to the top of a 5-metre tree at a point 3 meters from the base of the tree.

Example 3

What is the angle of depression from the top of a 65-metre cliff to an object 48 meters from its base?

To solve a triangle means to find all _____ and all _____ of the triangle.

Example 4: Solve the right triangle below.

