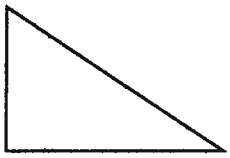
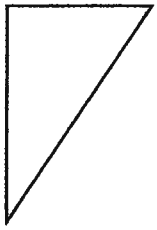
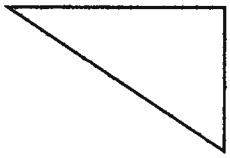
Name: _____

AWM10 **Ch. 7.3 Cosine Ratio** Notes

Label the following triangles with _____, _____, _____







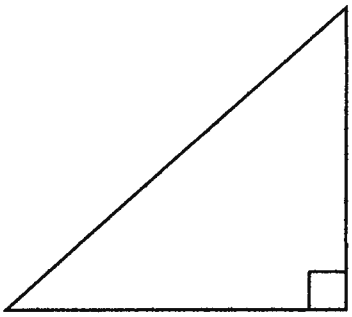
If we do not happen to know the opposite side or the hypotenuse we have no use for the Sine ratio. There must then be a different trig ratio we can use.. One of the other trig ratios is the _____ ratio. This ratio will be used with a different combination of sides than the Sine ratio.

Use your calculator to find Cosine ratios (4 decimal places).

Cos 34°=_____ Cos 71°=_____
Cos 45°=_____ Cos 83°=_____
Cos 56°=_____ Cos 90°=_____

The Cosine Ratio.

We can use the Cosine ratio to solve for a missing side of a triangle if we know a certain angle in that triangle.



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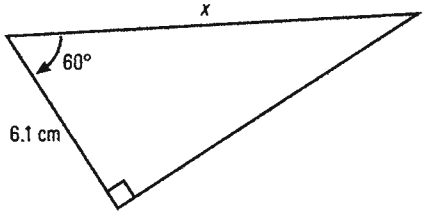
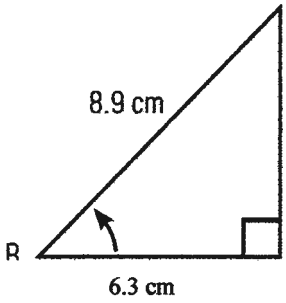
The Cosine Ratio

SOH**CAH**TOA

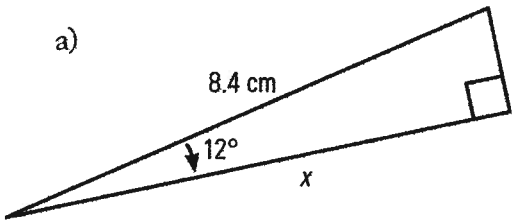
Example 1: Which trig ratio would you use to solve the following problems?

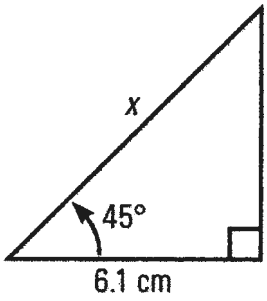




Example 2: Find the length of the missing sides.

a)

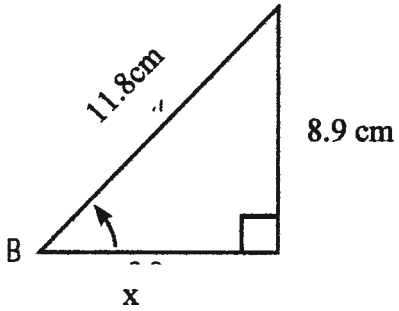




Example 3:
The angle of a cable from a point 12.5 metres from its base is 52°. How long is the cable?

Example 4:
How far from the base of a flagpole must a guy wire be fixed if the wire is 12 metres long and it makes an angle of 63° with the ground?

Example 5:
Find the Cosine ratio of the following diagram.
You may need to use Pythagoras!!!



Example 6:
Find <M