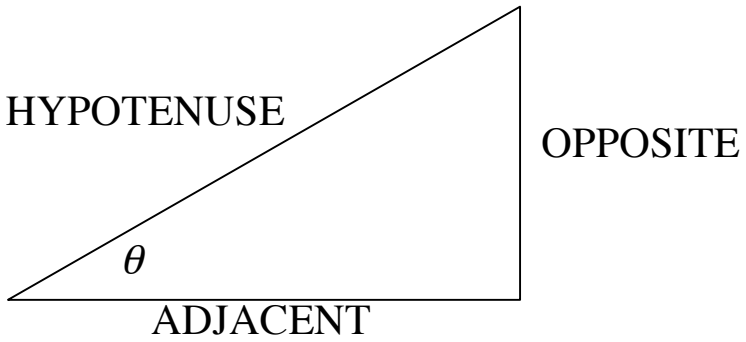
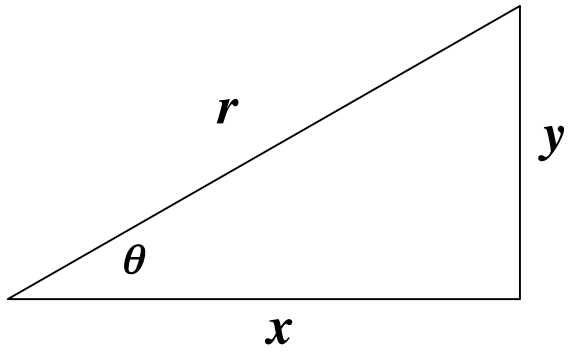
TRIGONOMETRIC FUNCTIONS



Sine θ = $\frac{\text{OPPOSITE}}{\text{HYPOTENUSE}}$	Sin^{-1} = 1 / Sin
Cosine θ = $\frac{\text{ADJACENT}}{\text{HYPOTENUSE}}$	Cos^{-1} = 1/ Cos
Tangent θ = $\frac{\text{OPPOSITE}}{\text{ADJACENT}}$	Tan^{-1} = 1/ Tan

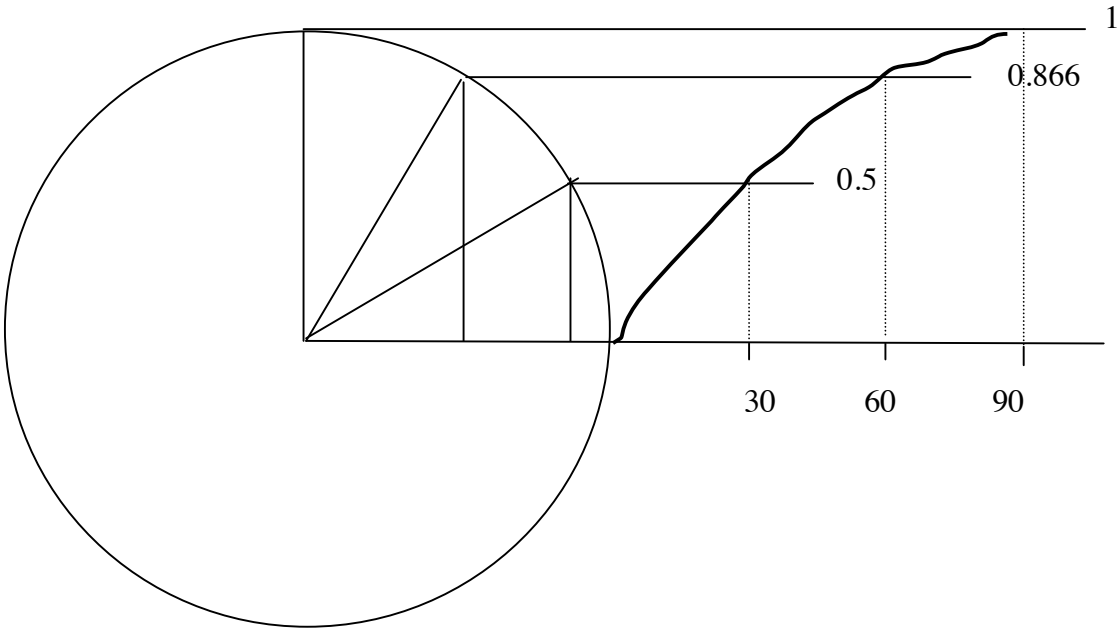
Eg Sin of 30° = 0.5 (ie Opposite is exactly 1/2 the length of the Hypotenuse).

Sin^{-1} of 0.5 is 30°.



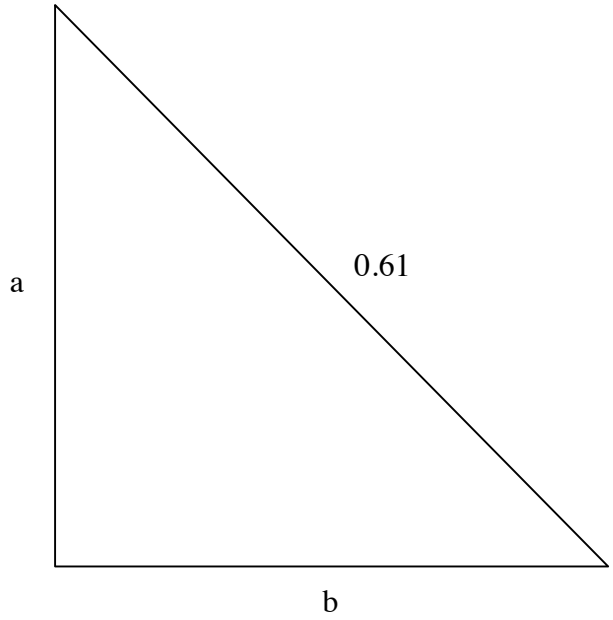
$$r = \sqrt{(x^2 + y^2)}$$

Here you can see how the sine values around a circle generate a (you guessed it) Sinewave:



Example:

A corner bass trap has a front surface of 0.61m



This is a right angle isosceles triangle, so the angles at each side are equal, and a=b.

We could use the Pythagoras theorem to find length a, but it is much simpler to use a trig. formula:

$\sin\theta$ = opp/ hyp so;

a = Sin45 x 0.61
= 0.7071 x 0.61
= 0.43m