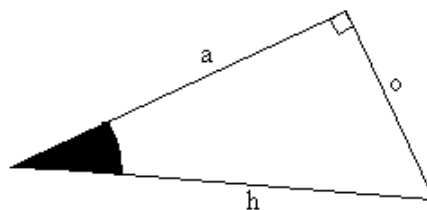
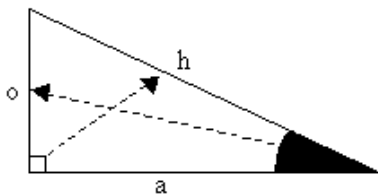


TRIGONOMETRY – LABELLING SIDES

Notes:



h – hypotenuse : the side opposite the right angle

o – opposite : the side opposite the marked angle

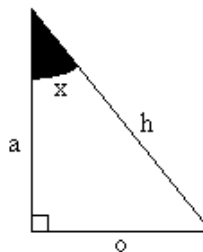
a – adjacent : the side next to the marked angle

The following trigonometric ratios, sine (sin), cosine (cos) and tangent (tan) apply to right angled triangles.

$$\begin{aligned}\sin x &= \frac{\text{length of opposite side}}{\text{length of hypotenuse}} \\ &= \frac{o}{h}\end{aligned}$$

$$\begin{aligned}\cos x &= \frac{\text{length of adjacent side}}{\text{length of hypotenuse}} \\ &= \frac{a}{h}\end{aligned}$$

$$\begin{aligned}\tan x &= \frac{\text{length of opposite side}}{\text{length of adjacent side}} \\ &= \frac{o}{a}\end{aligned}$$



Exercises

For the triangles below state:

- the length of the hypotenuse
- the length of the side opposite x
- the length of the side adjacent to x
- $\sin x$
- $\cos x$
- $\tan x$

