

**REVISION: TRIGONOMETRY****21 APRIL 2014****Lesson Description**

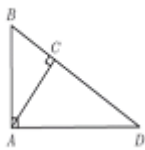
In this lesson we revise:

- Trigonometric ratios and solving triangles
- how to solve Trig equations

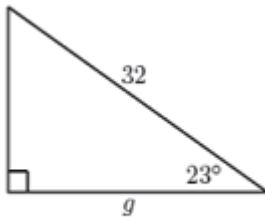
**Improve your Skills****Trigonometry In triangles****Question 1**

Write two solutions for each of the following Trig ratios in terms of the sides of the triangles.

- $\sin B$
- $\cos D$
- $\tan B$

**Question 2**

Find the length of the unknown side in the triangle below:

**Question 3**

A ladder of length 15m is resting against a wall, the base of the ladder is 5m from the wall. Find the angle between the wall and the ladder.

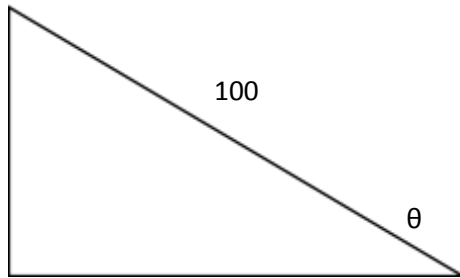
## Solving Trig Equations



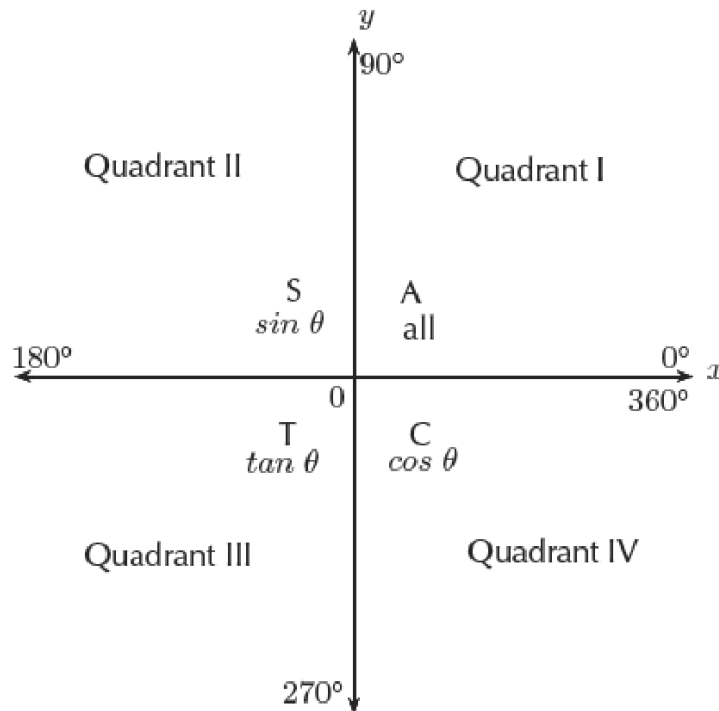
### Summary

#### Example 1

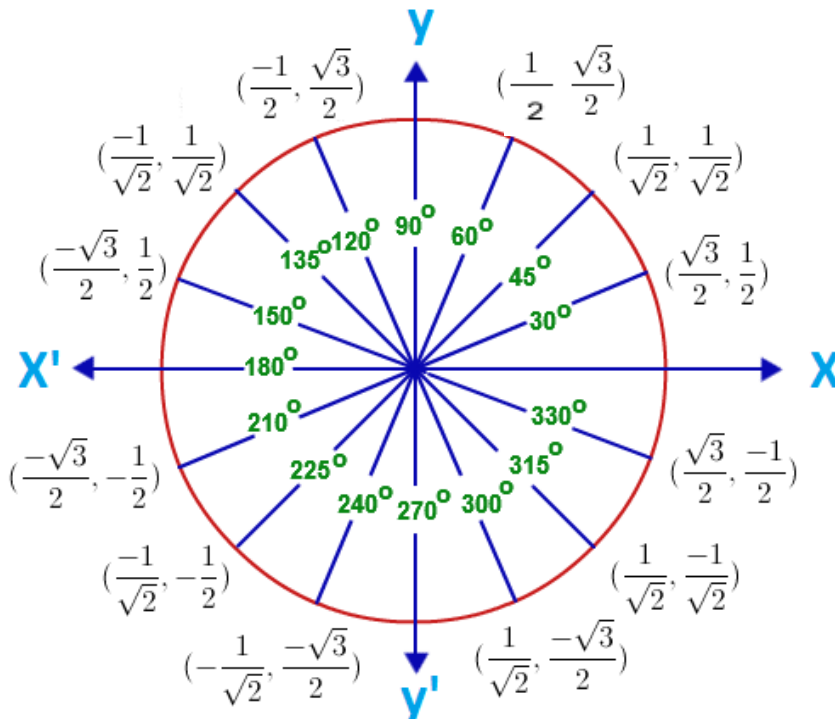
Find the value of  $\theta$  in the following right angled triangle:



#### Cast Diagram-The Cartesian Plane



## Special Angles



### Improve your Skills

#### Question 1

Solve for  $\theta$  correct to one decimal place:

- $2\sin\theta = 0.2$
- $\sin 2\theta = 0.4$
- $2\sin 3\theta + 1 = 2.6$

#### Question 2

Without using a calculator determine the value of

$$\sin 60^\circ \cos 30^\circ - \cos 60^\circ \sin 30^\circ + \tan 45^\circ$$

#### Question 3

Without using a calculator find:

- $4\cos^2 30^\circ + 8\cos^2 45^\circ$
- $\frac{\sin^2 60^\circ \cos^2 45^\circ}{\sin 90^\circ}$