

Inverse trigonometric functions

Teacher notes

Why use this resource?

This resource offers some explanation of inverse trigonometric functions and in particular the principal value range. It can be used as reference material for students who are working with these functions and starting to appreciate the significance of domain and range.

It opens with a classic problem about finding the angle in a triangle – a problem where blind use of an inverse trigonometric function would yield only one of two possible answers.

Possible approaches

The resource can be used either online or in printed form. It could be given to students to read through as a preparatory homework task before doing a task such as [Inverse or not?](#) or it could be used as the basis for a classroom discussion.

Possible support

The Scaffolded task [Making inverse functions](#) explains algebraic inversion of functions and why they need to be one-to-one.

You don't want students to get bogged down in the initial triangle problem, so if necessary nudge them in the direction of the Sine Rule.