

Mathematics 1613: Trigonometry Quiz #9

Problem 28: What does it mean for two functions to be inverse to each other?

Problem 29: What are the “quadrants of output” for each of the following inverse trigonometric functions:

Function	Quadrants of Output
$\sin^{-1}(x)$	
$\cos^{-1}(x)$	
$\tan^{-1}(x)$	

Problem 30: Find the following inverse trigonometric values (be mindful of the quadrants of output!):

$$\sin^{-1}\left(\frac{1}{2}\right)$$

$$\sin^{-1}\left(-\frac{1}{2}\right)$$

$$\cos^{-1}\left(\frac{\sqrt{2}}{2}\right)$$

$$\cos^{-1}\left(-\frac{\sqrt{2}}{2}\right)$$

$$\tan^{-1}(\sqrt{3})$$

$$\tan^{-1}(-\sqrt{3})$$