Common Trigonometry Mistakes

Example: Value of inverse cosine

The Goal

Find

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

The Mistake

Find the mistake:

$$\cos^{-1}\left(\frac{1}{2}\right) = \frac{\pi}{6}$$

Need a hint? Look carefully at the red part:

$$\cos^{-1}\left(\frac{1}{2}\right) = \frac{\pi}{6}$$

The Correction

$$\cos^{-1}\left(\frac{1}{2}\right) = \frac{\pi}{3}$$

An Explanation

The mistake is likely simply confusion with the inverse *sine* of 1/2. Cosine of *π/3* is equal to 1/2. Students should learn the values of the inverse trigonometric functions at nice values - visit Trigonometric Facts to help learn these values.