Common Trigonometry Mistakes
Example: Value of a Trigonometric Function

The Goal

Find the exact value of:

$$\sin\left(\frac{5\pi}{6}\right)$$

The Mistake

Find the mistake:

$$\sin\left(\frac{5\pi}{6}\right) = -\frac{1}{2}$$

Need a hint? Look carefully at the red part:

$$\sin\left(\frac{5\pi}{6}\right) = -\frac{1}{2}$$

The Correction

$$\sin\left(\frac{5\pi}{6}\right) = \frac{1}{2}$$

An Explanation

The angle 5π/6 lies in the *second* quadrant, with reference angle π - 5π/6 = π/6. Sine is *positive* in the second quadrant, and so sin(5π/6) = +sin(π/6) = 1/2.

You are expected to know the exact values of the trigonometric functions at all the nice angles. Visit Trigonometric Facts to help learn these values.