

Cornell (/

Special Triangles and Unit Circle

Today's Standard

HSF.TF.A3 - (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi/3$, $\pi/4$ and $\pi/6$, and use the unit circle to express the values of sine, cosine, and tangent for x, $\pi + x$, and $2\pi - x$ in terms of their values for x, where x is any real number.

Cues	Notes
Special triangles	Special triangles (30-60-90 and 45-45-90) are used to determine exact trigonometric values.
Unit circle	
Sine, Cosine, Tangent values	The unit circle helps to visualize and understand the periodic nature of trigonometric functions.
Periodicity of trigonometric functions	Trigonometric values for $\pi/3$, $\pi/4$, and $\pi/6$ can be derived geometrically using special triangles.
Equivalent angles	Trigonometric functions are periodic, meaning their values repeat every 2π .
	Angles like π + x and 2π - x have the same trigonometric values as x.

Summary

This standard involves using special triangles and the unit circle to determine trigonometric values for specific angles and understanding their periodic nature. Mastery of this concept is essential for advanced trigonometric applications.