<?xml version="1.0"?>

AstroMath DLL

<doc>

<assembly>

<name>AstroMath</name>

</assembly>

<members>

<member name="T:AstroMath.AstronomicalFunctions">

<summary>

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Date: 2023.08.29

Description: This DLL provides calculation services with the four following astronomical functions:

Star Velocity, Star Distance, Temperature Conversion and Blackhole Event Horizon.

</summary>

</member>

<member name="M:AstroMath.AstronomicalFunctions.StarVelocity(System.Double,System.Double)">

<summary>

Calculate Star Velocity.

Formula used: v = c ( Δλ / λo )

Warning! This method contains no error trapping, and will not catch division by zero errors.

Error trapping must be implemented on the client side.

</summary>

<param name="observedWavelengthInNanoMetres">Input a double value representing the observed wavelength of the body in nano metres.</param>

<param name="restWavelengthInNanoMetres">Input a double value representing the rest wavelength of the body in nano metres.</param>

<returns>Returns a double value representing the velocity of the body in metres per second.</returns>

</member>

<member name="M:AstroMath.AstronomicalFunctions.TemperatureConversion(System.Double)">

<summary>

Convert Celsius to Kelvin.

Formula used: K = C + 273.15

Warning! This method contains no error trapping, and will not catch non-existent temperatures such as those below absolute zero.

Error trapping must be implemented on the client side.

</summary>

<param name="temperatureInCelsius">Input a double value representing the temperature in celsius that you wish to convert to kelvin.</param>

<returns>Returns a double value representing your temperature in kelvin.</returns>

</member>

<member name="M:AstroMath.AstronomicalFunctions.StarDistance(System.Double)">

<summary>

Calculate Star Distance.

Formula used: D = 1 / P

Warning! This method contains no error trapping, and will not catch division by zero errors.

Error trapping must be implemented on the client side.

</summary>

<param name="paralaxAngleInArcseconds">Input a double value representing the parallax angle of the body in arcseconds.</param>

<returns>Returns a double value representing the distance to the body in parsecs.</returns>

</member>

<member name="M:AstroMath.AstronomicalFunctions.BlackholeEventHorizon(System.Double)">

<summary>

Calculate Blackhole Schwarzschild Radius.

Formula used: R = ( 2GM ) / c^2

</summary>

<param name="blackHoleMassInKilograms">Input a double value representing the mass of the body you wish to calculate for in kilograms.</param>

<returns>Returns a double value representing the Schwarzschild Radius of the body in metres.</returns>

</member>

</members>

</doc>