Math

Go Up

DESCRIPTIONS

MODULE Math

Math

Children

- 1. Infinity: Return a real "infinity" value
- 2. NaN: Return a non-signalling NaN (Not a Number) value
- 3. isInfinite: Return whether a real value is infinite (positive or negative)
- 4. isNaN: Return whether a real value is a NaN (not a number) value
- 5. isFinite: Return whether a real value is a valid value (neither infinite not NaN)
- 6. FMod: Returns the floating-point remainder of numer/denom (rounded towards zero)
- 7. FMatch: Returns whether two floating point values are the same, within margin of error epsilon

ATTRIBUTE Infinity

Math \

REAL8 Infinity

Return a real "infinity" value.

ATTRIBUTE NaN

Math \

REAL8 NaN

Return a non-signalling NaN (Not a Number) value.

FUNCTION isInfinite

Math \

BOOLEAN isInfinite

(REAL8 val)

Return whether a real value is infinite (positive or negative).

PARAMETER <u>val</u> The value to test.

FUNCTION isNaN

Math \

BOOLEAN isNaN

(REAL8 val)

Return whether a real value is a NaN (not a number) value.

PARAMETER <u>val</u> The value to test.

FUNCTION isFinite

Math \

BOOLEAN	isFinite
(REAL8 val)	

Return whether a real value is a valid value (neither infinite not NaN).

PARAMETER <u>val</u> The value to test.

FUNCTION FMod

Math \

REAL8	FMod
(REAL8 numer, REAL8 denom)	

Returns the floating-point remainder of numer/denom (rounded towards zero). If denom is zero, the result depends on the -fdivideByZero flag: 'zero' or unset: return zero. 'nan': return a non-signalling NaN value 'fail': throw an exception

PARAMETER <u>numer</u> The numerator.

PARAMETER <u>denom</u> The numerator.

FUNCTION FMatch

Math \

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BOOLEAN FMatch

(REAL8 a, REAL8 b, REAL8 epsilon=0.0)
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Returns whether two floating point values are the same, within margin of error epsilon.

PARAMETER <u>a</u> The first value.

PARAMETER epsilon The allowable margin of error.