



# Tech Info Library

## Applesoft: Rounding and truncating floating-point numbers

Sometimes Applesoft's math package doesn't give the answer you expect because Applesoft calculations are done in a 32 bit binary floating point format, which have no exact equivalents to most numbers. Furthermore, Applesoft uses natural logarithms to calculate many of its transcendental functions, which adds small errors to the results.

To avoid comparison problems, round Applesoft real numbers to a specific number of decimal places. Use the formula:

$$X = \text{INT}(X * P + .5) / P$$

where P=10 for 1 decimal place, P=100 for 2 decimal places and P=1000 for 3 decimal places, etc.

Apple Tech Notes

Keywords: <None>

=====

This information is from the Apple Technical Information Library.

19960215 11:05:19.00

Tech Info Library Article Number: 66