Applesoft: Rounding and truncating floating-point numbers

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Security:       Everyone
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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 trancendental
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:

$$X = INT(X*P+.5)/P$$

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

Apple Tech Notes

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