TESTING BOUNDED FLOATING POINT
RESULTS ACCURATE TO +/- 1 IN THE LAST DISPLAYED DIGIT.

Testing 32-bit functions

Addition
BFP32 1 + 1
2.000

BFP32 .1 + .1
0.1999

BFP32 2.14159265358979323846 + 1
3.141

Cancelation
BFP32 100 - 99
1.00

BFP32 100 - 99.1
QNAN.sig

Testing Rounding Error
Summation i = 1 to N of 0.1
BFP32 41 S .1
4.10

BFP32 42 S .1
QNAN.sig

Testing 64-bit functions

Addition
BFP64 1 + 1
2.0000000000

BFP64 .1 + .1
0.20000000000

BFP64 2.14159265358979323846 + 1
3.1415926535

Cancelation (default accuracy 5 digits)
BFP64 1000000 - 999999.5
0.50000
BFP64 1000000 - 999999.6
QNAN.sig

Cancelation (3 digits)
BFP64 100000000 - 99999999.5 P 3
0.500

BFP64 100000000 - 99999999.6 P 3
QNAN.sig

Cancelation (7 digits)
BFP64 10000 - 9999 P 7
1.000000

BFP64 10000 - 9999.9 P 7
QNAN.sig

Testing Rounding Error (5 digits)
Summation i = 1 to N of 0.1
BFP64 898 S .1
89.800

BFP64 899 S .1
QNAN.sig

Testing Rounding Error (3 digits)
BFP64 1165 S .1 P 3
116.

BFP64 1166 S .1 P 3
QNAN.sig

Testing Rounding Error (7 digits)
BFP64 628 S .1 P 7
62.80000

BFP64 629 S .1 P 7
QNAN.sig