

Paul

I hope the print outs are self explanatory. Note that the problem seems independent of integer vs. f.p. notation. (In light of that I didn't get a listing of SAPL from backup tapes.)

Chuck

$\nabla F[\square]\nabla$
 $\nabla F \ N$

- [1] $T1 \leftarrow N$
- [2] $T2 \leftarrow N \div 10$
- [3] $T3 \leftarrow T2 \times 10$
- [4] $T4 \leftarrow T2 \times 10.0$
- [5] $T5 \leftarrow 10.0$
- [6] $T6 \leftarrow T3 - N$
- [7] $T6$

∇

F 5

0

F 10000000

0

F 5242886

5

0

F 5242886.5

0

F 5242886.6

1

F 5242887

1

F 5242888

0

F 5242897

1

F 5242898

0

F 5242906

0

F 5242907

1

F 5242908

0

exper + l.p. ~15
TSS (devd) ~
96K

5242992

2097155
1048577.5
524288.75

5

1000 0000

5242886

5242886.5

5242886,6

524288.75; next smaller is $\sim .5$, so we correctly rounded to nearest expressible
5242887. $26_8 = 22^{10}$

1.00 0.50 0.25 0.125 0.0625 0.03125 0.015625 0.0078125 0.00390625 0.001953125 0.0009765625 0.00048828125 0.000244140625 0.0001220703125 0.00006103515625 0.000030517578125 0.0000152587890625 0.00000762939453125 0.000003814697265625 0.0000019073486328125 0.00000095367431640625 0.000000476837158203125 0.0000002384185791015625 0.00000011920928955078125 0.000000059604644775390625 0.0000000298023223876953125 0.00000001490116119384765625 0.000000007450580596923828125 0.0000000037252902984619140625 0.00000000186264514923095703125 0.000000000931322574615478515625 0.0000000004656612873077392578125 0.00000000023283064365386962890625 0.000000000116415321826934814453125 0.0000000000582076609134674072265625 0.00000000002910383045673370361328125 0.000000000014551915228366851806640625 0.0000000000072759576141834259033203125 0.00000000000363797880709171295166015625 0.000000000001818989403545856475830078125 0.0000000000009094947017729282379150390625 0.00000000000045474735088646411895751953125 0.000000000000227373675443232059478759765625 0.0000000000001136868377216160297393798828125 0.00000000000005684341886080801486968994140625 0.000000000000028421709430404007434844970703125 0.0000000000000142108547152020037174224853515625 0.00000000000000710542735760100185871124267578125 0.000000000000003552713678800500929355621337890625 0.0000000000000017763568394002504646778106689453125 0.00000000000000088817841970012523233890533447265625 0.000000000000000444089209850062616169452667236328125 0.0000000000000002220446049250313080847263336181640625 0.00000000000000011102230246251565404236316680908203125 0.000000000000000055511151231257827021181583404541015625 0.0000000000000000277555756156289135105907917022705078125 0.00000000000000001387778780781445675529539585113525390625 0.000000000000000006938893903907228377647697925567626953125 0.0000000000000000034694469519536141888238489627838134765625 0.00000000000000000173472347597680709441192448139190673828125 0.000000000000000000867361737988403547205962240695953369140625 0.0000000000000000004336808689942017736029811203479766845703125 0.00000000000000000021684043449710088680149056017398834228515625 0.000000000000000000108420217248550443400745280086994171142578125 0.0000000000000000000542101086242752217003726400434970855712890625 0.00000000000000000002710505431213761085018632002174854278564453125 0.000000000000000000013552527156068805425093160010874271392822265625 0.0000000000000000000067762635780344027125465800054371356964111328125 0.00000000000000000000338813178901720135627329000271856784820556640625 0.000000000000000000001694065894508600678136645001359283924102783203125 0.0000000000000000000008470329472543003390683225006796419620513916015625 0.00000000000000000000042351647362715016953416125033982098102569580078125 0.000000000000000000000211758236813575084767080625169910490512847900390625 0.0000000000000000000001058791184067875423835403125849552452564239501953125 0.00000000000000000000005293955920339377119177015629247762262821197509765625 0.000000000000000000000026469779601696885595885078146238811314105987548828125 0.0000000000000000000000132348898008484427979425390731194056570529937744140625 0.00000000000000000000000661744490042422139897126953655970282852649688720703125 0.000000000000000000000003308722450212110699485634768279851414263248443603515625 0.0000000000000000000000016543612251060553497428173841399257071316242218017578125 0.00000000000000000000000082718061255302767487140869206996285356581211090087890625 0.000000000000000000000000413590306276513837435704346034981426782906055450439453125 0.0000000000000000000000002067951531382569187178521730174907133914530277252197265625 0.00000000000000000000000010339757656912845935892608650874535669572651386260986328125 0.000000000000000000000000051698788284564229679463043254372678347863256931304931640625 0.0000000000000000000000000258493941422821148397315216271863391739316284656524658203125 0.00000000000000000000000001292469707114105741986576081359316958696581423282623291015625 0.000000000000000000000000006462348535570528709932880406796584793482907116413116455078125

34
30

PS 60 65
60: 400000 200
61: 500000 203
62: 500000 4226
63: 500000 4226
64: 400000 3223
65: 20120 7
:

5242887

PS 60 65
60: 200000 0
61: 500000 203
62: 500000 4226
63: 500000 4226
64: 400000 3223
65: 20120 10
:

5242888

PS 60 65
60: 400000 200
61: 500000 203
62: 500000 11226
63: 500000 11226
64: 400000 7223
65: 20120 21
:

5242897

PS 60 65
60: 200000 0
61: 500000 203
62: 500000 11226
63: 500000 11226
64: 400000 7223
65: 20120 22
:

5242898

PS 60 65
60: 200000 0
61: 500000 203
62: 500000 15226
63: 500000 15226
64: 400000 12623
65: 20120 32
:

5242906

PS 60 65
60: 400000 200
61: 500000 203
:

5242907

62: 50000 16226
63: 50000 16226
64: 40000 13223
65: 20120 33
:

PS 60 65
60: 20000 0
61: 50000 203
62: 50000 16226
63: 50000 16226
64: 40000 13223
65: 20120 34
:

5242908

"F 5,242,886.6" entered



$N = 5,242,887$ because .6 is closer to 1 than to 0



$N \div 10 = 524,288.75$ because .75 is closer to 1 than to 0 ^{.625}



$N \div 10 \times 10 = 5,242,888$ because ...7.5 is rounded to nearest even = ...8.

5 242 886

$\div 10$

= 524,288.625

$\times 10$

= 5242886.

(.25 closer to 0 than 1)