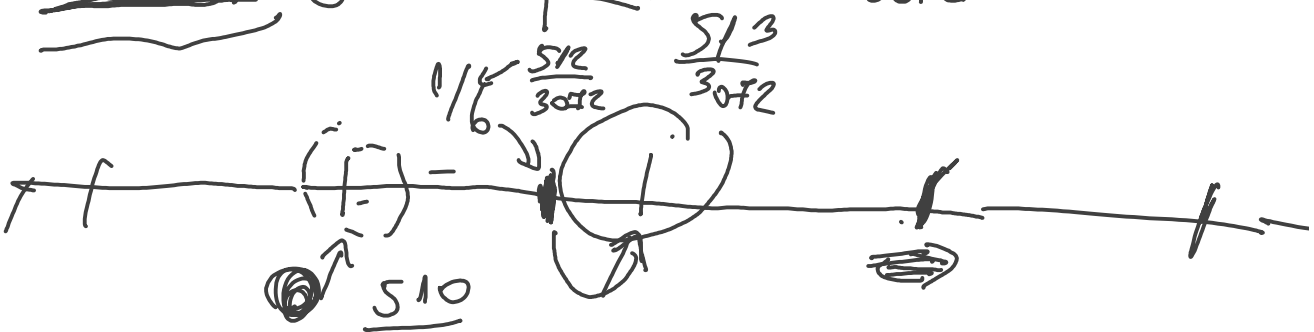
Wednesday, September 20, 2023 8:34 AM

$1/6 = 1,1666\ldots$ $\quad fl(1/6)$

$fl((0.17) = [1\,0\,1\,0\,1 \mid 110 \mid -2] =$

$fl((0,167) = [10101 \mid 011 \mid -2] = \frac{513}{3072}$



$fl(1/6) \neq fl(0,17) =$

$fl((1/6) = fl(0.167)$

c) $fl((1/6) = [10101011 \mid -2]$

$fl(3.14) = [11001001 \mid 2]$

$fl(1/6) + fl(3.14) = ?$

$fl(3.14) = 11.001001$

$fl(1/6) = 0.0010101011$

11.001001

0.0010101011

11.0101011|1011

$fl(1/6)+fl(3.14) = [11010100|2]$

0,124

0.124|6 0,001 1246 1240 1250

0.0005

0.125

$\frac{1}{2}10^{-3}$

(0.00101011100|0

$\frac{1}{2}\cdot 2^{-10} = 2^{-11}$

$[.10101110|-2]$

$\frac{1}{2}\cdot 2^{-8-2}$ $\frac{1}{2}\cdot 2^{-2-8}$

$\Delta_{fl(x)}\frac{1}{2}\cdot 2^{-7+4}$

0,123|4 + 0,12|34

Δ - 0,0005   0,005

0,24|6|8 → 0,246

0,24|7   0,24   0,247

0,0005

0,005   0,25   0,005

$fl(3,14) = [1001001|2]$

11.001001

$\Delta_{fl(3,14)} = \frac{1}{2}2^{-6} = 2^{-7}$

$= \frac{1}{2}2^{-8+2} = 2^{-7}$

1.4.*

a) $a = fl(8) = [100000/4]$

$b = fl((1/6) = [100000/-3]$

$a+b = [600000/4]$

$= [100000/4]$

$= [100000/4]$

$a+b = a$

$(a+b)+b = a+b$

$= a$

b) $b+b = [100000/-3] + [100000/-3]$

$= 2 \cdot b$

$= 2 \cdot [100000/-3]$

$= [100000/-2]$

$a+(b+b) = [100000/4] + [100000/-2]$

$= 0$

$[100000/-2] = 0.100000 \cdot 2^{-2}$

$= 0.000000 \overline{1} \cdot 2^{4}$

$= [000001 \,|\, 4]$

$a + (b + b) = [100000 \,|\, 4] +$
$[000001 \,|\, 4]$

$a + (b + b) + [100001 \,|\, 4]$

$(a + b) + b = [100000 \,|\, 4]$

c) $a + a = [100000 \,|\, 4] +$
$[100000 \,|\, 4]$

1.000000
$M(8, (-4,4)) \quad [100000 \,|\, 5]$

inf