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1 1.
2 a) largest value =  $0.33333 \times 10^{10}$  (base 4)
3
4 b)
5  $0.0323113 \times 10^{-1}$  (base 4)
6 in F =
7  $0.32311 \times 10^{-2}$  (base 4)
8
9 c)
10 F uses rounding so
11 machine epsilon =  $0.5 \times B^{(1-m)}$ 
12  $= 0.5 \times 4^{(1-5)}$ 
13  $= 0.5 \times 4^{-4}$ 
14  $= 0.2 \times 10^{-4}$  (base 4)
15
16 d)
17 1 in F =  $0.1 \times 10^1$  (base 4)
18 largest value =  $0.33333 \times 10^{10}$  (base 4)
19 = 1047552 in base 10
20 smallest value =  $-0.33333 \times 10^{10}$  (base 4)
21 = -1047552 in base 10
22
23 range = 2095104
24 amount < 1 = 1047553
25
26 fraction which are smaller than 1 = 1047553/2095104
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