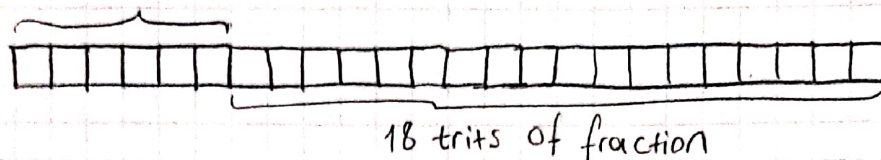


Q2.4)

+  $\rightarrow$  represents +1-  $\rightarrow$  represents -10  $\rightarrow$  represents 0 (zero)

6 trits of exponent

positive infinity + =  $+\infty$ negative infinity + + + + + + - - - - - - - - - - - - - - - - =  $-\infty$ 

NaN + + + + + + 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = NaN

smallest positive - - - - - - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 =  $3^{-18} \times 3^{-364} = 3^{-382}$ largest positive + + + + + 0 + + + + + + + + + + + + + + + + =  $0.5 \times 3^{363}$ largest negative - - - - - - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 - =  $-3^{-18} \times 3^{-364} = -3^{-382}$ smallest negative + + + + + 0 - - - - - - - - - - - - - - - - =  $-0.5 \times 3^{363}$ 

zero - - - - - - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = 0

I don't have -0 and +0 because of the nature of ternary representation, representation is symmetric around zero.