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# maquina gen'érica
import numpy as np
def maq(beta,t,a,b,numero):
    print('Maquina = [' ,beta, ' ,t, ' ,a, ' ,b, ' ]          numero = ' ,numero)
    pi=np.floor(numero)
    pf=numero-pi
    nb=[]
    while l==1:
        nb=[pi%beta]+nb
        pi=pi//beta
        if pi==0:
            break
    fb=[]
    ct=0
    while ct<9:
        pf=pf*beta
        hora=np.floor(pf)
        fb=fb+[hora]
        pf=pf-hora
        ct=ct+1
    nu=nb+fb
    nu=nu[0:t]
    tamanho=len(nu)
    expoente=tamanho
    if expoente<a:
        print('underflow')
        return
    if expoente>b:
        print('overflow')
        return
    print('numero = 0.',end='')
    for i in range(len(nu)):
        print(int(nu[i]),end='')
    print(' * ',beta, ' ^ ',expoente)
    bacana=0
    for i in range(len(nu)):
        bacana = bacana + (nu[i]*(beta**(tamanho-1)))
        tamanho=tamanho-1
    ea=np.around(np.abs(bacana-numero),4)
    er=np.around((ea/bacana),4)
    print('erro absoluto = ',ea)
    print('erro relativo = ',er)
    return
maq(6,5,-4,4,124.45)
```