class Solution:

def isNumber(self, s: str) -> bool:

dfa = {

1: {'sign':7, 'dig':2, 'dot':3},

2: {'dig':2, 'exp':5, 'dot':4},

3: {'dig':4},

4: {'dig':4, 'exp':5},

5: {'sign':5, 'dig':6},

6: {'dig':6},

7: {'dig':2, 'dot':3}

}

state = 1

for i, char in enumerate(s):

if char == "+" or char == '-':

act = "sign"

elif char.isdigit():

act = "dig"

elif char == '.':

act = "dot"

elif char == "e" or char == "E":

act = "exp"

else:

return False

if act not in dfa[state]:

return False

state = dfa[state][act]

if state in [2,4,6]:

return True

return False