**Use the two methods below to normalize the following group of data:**

**200, 300, 400, 600, 1000**

1. **min-max normalization by setting min = 0 and max = 1**

200 => (200-200) / (1000-200) = 0

300 => (300-200) / (1000-200) = 0.125

400 => (400-200) / (1000-200) = 0.25

600 => (600-200) / (1000-200) = 0.5

1000 => (1000-200) / (1000-200) = 1

1. **z-score normalization**

Means: (200+300+400+600+1000) / 5 =500

SD=282.84271

200 => (200-500) / 282.84271 = -1.0607

300 => (300-500) / 282.84271 = -0.7071

400 => (400-500) / 282.84271 = -0.3536

600 => (600-500) / 282.84271 = 0.3536

100 => (1000-500) / 282.84271 =1.7678

arr=[200, 300, 400, 600, 1000]

arr\_n=[]

zscore=0

def f(arr):

  l\_tt=800

  for i in range(len(arr)):

    arr\_n.append((arr[i]-200)/l\_tt)

  print(arr\_n)

f(arr)

def f(zscore):

  agg=0

  z=[]

  agg\_1=0

  for i in range(len(arr)):

    agg+=arr[i]

    avg=agg/len(arr)

  for i in range(len(arr)):

    agg\_1+=(arr[i]-avg)\*\*2

    std=(agg\_1/len(arr))\*\*0.5

  for i in range(len(arr)):

    z.append((arr[i]-avg)/std)

  print(z)

f(zscore)