

```

test_data = rand(20, 4)

test_data =

    0.7803    0.5470    0.6443    0.3111
    0.3897    0.2963    0.3786    0.9234
    0.2417    0.7447    0.8116    0.4302
    0.4039    0.1890    0.5328    0.1848
    0.0965    0.6868    0.3507    0.9049
    0.1320    0.1835    0.9390    0.9797
    0.9421    0.3685    0.8759    0.4389
    0.9561    0.6256    0.5502    0.1111
    0.5752    0.7802    0.6225    0.2581
    0.0598    0.0811    0.5870    0.4087
    0.2348    0.9294    0.2077    0.5949
    0.3532    0.7757    0.3012    0.2622
    0.8212    0.4868    0.4709    0.6028
    0.0154    0.4359    0.2305    0.7112
    0.0430    0.4468    0.8443    0.2217
    0.1690    0.3063    0.1948    0.1174
    0.6491    0.5085    0.2259    0.2967
    0.7317    0.5108    0.1707    0.3188
    0.6477    0.8176    0.2277    0.4242
    0.4509    0.7948    0.4357    0.5079

[xs, x_mean, x_std] = zscore1(test_data)

xs =

    1.1133    0.0882    0.6591   -0.5305
   -0.1447   -0.9527   -0.4074    1.8008   -0.6216    0.9090    1.3305   -0.0770   -0.0991   -1.3984
    0.2116   -1.0114   -1.0895    0.6685   -0.5193    1.7304   -0.9751   -1.4210    1.8420    2.0155    1.6345
   -0.6530    1.5889   -0.0440    1.6798    0.4146    0.2812   -1.2920    0.4527    1.0565    0.5715   -0.7325
    1.2076   -1.8461    0.4293   -0.1588   -0.6439    1.6758   -1.0933    0.5501   -0.2626    1.0378   -0.7180
   -0.7167    1.2452   -0.1618   -0.0369    0.5803   -1.3506   -0.3733   -1.0020    0.9930   -1.2616
    0.3279    1.4619   -0.8708   -0.8558   -0.9110   -1.1454   -1.2680    0.6908   -0.0717   -1.0203
   -0.5855    0.9569   -0.0623   -1.2419   -0.5013    0.6864    1.2118   -1.0133   -0.1000    0.0524    1.1171
   -0.1783    0.2186

x_mean =

    0.4347    0.5258    0.4801    0.4504

x_std =

    0.3104    0.2408    0.2491    0.2626

mean(test_data(:,1))

ans =

```

```

0.4347
mean(test_data(:,2))
ans =
0.5258
mean(test_data(:,3))
ans =
0.4801
mean(test_data(:,4))
ans =
0.4504
mean(xs(:,1))
ans =
-5.9328e-17
mean(xs(:,2))
ans =
-4.6629e-16
mean(xs(:,3))
ans =
-1.6237e-16
mean(xs(:,4))
ans =
-2.7756e-17
std(xs(:,1))
ans =
1
std(xs(:,2))
ans =
1
std(xs(:,3))
ans =
1.0000

```

```

std(xs(:,4))
ans =
    1
histogram(xs(:,1)) histogram(xs(:,2)) histogram(xs(:,3)) histogram(xs(:,4))
max(xs(:,1))
ans =
    1.6798
max(xs(:,2))
ans =
    1.6758
max(xs(:,3))
ans =
    1.8420
max(xs(:,4))
ans =
    2.0155
diary off

```