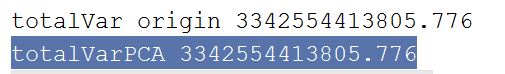
1)

TotalVar origin 3342554413805.776

totalVarPCA 3342554413805.776

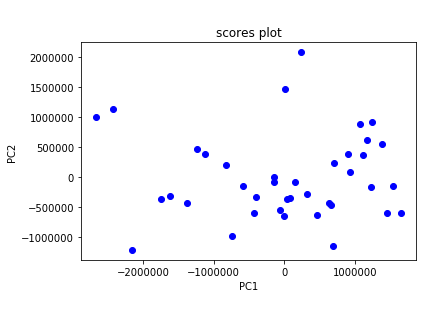


Yes They are the same

2)



3)



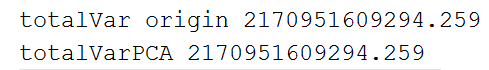
**4)**

0.75\*3342554413805.776=2.5691581\*10^12

With 41 number of PCAs

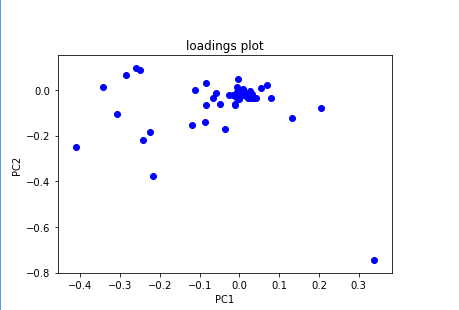


With 40 number of PCAs



Therefore, I think we must keep 41 number of PCAs out of 49.

**5)**



**6)**No, they are not different

