#flo #disorganized

---

# 1 | **let's go!!**

Alice and Bob wanted to exchange information secretly. The two of them agreed to use the Diffie-Hellman key exchange algorithm, using p = 13 and g = 5. They both chose numbers secretly where Alice chose 7 and Bob chose 3. Then, Alice sent Bob some encoded text (with both letters and digits) using the generated key as the shift amount for a Caesar cipher over the alphabet and the decimal digits. Can you figure out the contents of the message?

H98A9W$_{H6UM8W6A9D6C5ZCI9C8IJBACIFAI}$

picoCTF{M43F4B$_{M1ZR3B1F4I1H0EHN4H3NOGFHNKFN}$} h98a9w$_{h6um8w6a9d6c5zci9c8ijbacifai}$

picoCTF{C43V4R$_{C1PH3R1V4Y1X0UXD4X3DEWVXDAVD}$} ?????

0.000228317094759−0.000156369801965i −0.003388682514055−0.002559342592582i −0.020711023763668+0.0617869
1

0.026936273599087

−0.156975118120879

{{0.000228317094759+0.000156369801965i,0.000228317094759−0.000156369801965i,0.000019543959048,−0.0038680

−4.877111838242915+14.549833022334499i 0 0 0

0 −4.877111838242915−14.549833022334499i 0 0

0 0 37.124660035896274 0

0 0 0 −6.370436359410444

□ □ A

{{0.000228317094759+0.000156369801965i,0.000228317094759−0.000156369801965i,0.000019543959048,−0.0038680

Power[(123){{0.000228317094759+0.000156369801965i,0.000228317094759−0.000156369801965i,0.000019543959048
1](41),n]{{1},{2},{3},{4}}