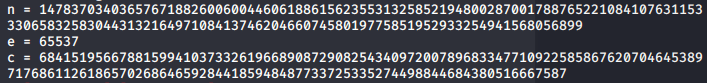
### RSA Twins!

https://mega.nz/#!2aBwFCKa!NWQKRIbYzSAU2iwCPNppO7SE92W6sne4FKD3sKE2A-k Aww, twins :). Theyâre so cute! They must be (almost) identical because theyâre the same except for the slightest difference. Anyway, see if you can find my flag. Hint: This is just math. You're probably not going to find any sort of specialized attack.

I suggest to read about RSA encryption/decryption before solving this challenge.

After downloading file from this link it showed the following text :



So I searched for rsa decryption tool on google. For prime factorization of large numbers such as n in above case there are many tools available online. I used Fermit Factorisation to solve this . You can find the python code here :

https://wiremask.eu/articles/fermats-prime-numbers-factorization/

After retrieving p and q from above method I used <https://www.dcode.fr/en> to uncipher RSA. All the values are shown below(I suggest to do all the calculations by yourself as all the tools are available online) :

n = 14783703403657671882600600446061886156235531325852194800287001788765221084107631153330658325830443132164971084137462046607458019775851952933254941568056899

e = 65537

c = 684151956678815994103733261966890872908254340972007896833477109225858676207046453897176861126186570268646592844185948487733725335274498844684380516667587

p = 121588253559534573498320028934517990374721243335397811413129137253981502291631

q = 121588253559534573498320028934517990374721243335397811413129137253981502291629

p-1 = 121588253559534573498320028934517990374721243335397811413129137253981502291630

q-1 = 121588253559534573498320028934517990374721243335397811413129137253981502291628

phi(n) = 14783703403657671882600600446061886156235531325852194800287001788765221084107387976823539256683446492107102048156712604120787224153025694658746978563473640

d = 3299077807627652338114863077706564002547334263707346215942099900219591350764767217923375522666515173826485305312906020038550943028182565335370471054378473

decrypted\_number = 2511413510841857968238260398011789038678337904998872216445

After this I converted the decrypted\_number which is a decimal number to hex and then to ascii and got the flag : flag{i\_l0v3\_tw1N\_pr1m3s}