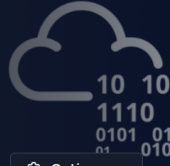




## Breaking RSA

Hop in and break poorly implemented RSA using Fermat's factorization algorithm.

Medium 30 min

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### Task 1 Capture the flag



Answer the questions below

How many services are running on the box?

✓ Correct Answer

What is the name of the hidden directory on the web server? (without leading '/')

✓ Correct Answer

What is the length of the discovered RSA key? (in bits)

✓ Correct Answer

What are the last 10 digits of  $n$ ? (where ' $n$ ' is the modulus for the public-private key pair)

✓ Correct Answer

Factorize  $n$  into prime numbers  $p$  and  $q$

✓ Correct Answer

What is the numerical difference between  $p$  and  $q$ ?

✓ Correct Answer

Generate the private key using  $p$  and  $q$  (take  $e = 65537$ )

✓ Correct Answer

What is the flag?

✓ Correct Answer