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Online C Compiler - Programiz

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Programiz C Online Compiler

Programiz PRO

main.c

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Run

```
25 if (g != 1)
26     return -1;
27 else
28     return (x % phi + phi) % phi;
29 }
30 int main() {
31     int n = 3599;
32     int e = 31;
33     int known_plaintext = 122;
34     int factor = gcd(known_plaintext, n);
35     if (factor == 1 || factor == n) {
36         printf("No useful factor found.\n");
37         return 0;
38     }
39     int p = factor;
40     int q = n / p;
41     printf("Found factors: p = %d, q = %d\n", p, q);
42     int phi = (p - 1) * (q - 1);
43     int d = modInverse(e, phi);
44     printf("φ(n) = %d\n", phi);
45     printf("Private key d = %d\n", d);
46     return 0;
47 }
```

Output

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```
* Found factors: p = 61, q = 59
φ(n) = 3480
Private key d = 3031

=== Code Execution Successful ===
```

33°C Mostly cloudy

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