```
>>> p = 6619                    p and q are two prime numbers
>>> q = 9479
>>> n = p * q
>>> n
62741501
>>> f = (p-1)*(q-1)
>>> f
62725404
>>> f / 3.0
20908468.0
>>> f / 5.0
12545080.8                      f and 5 doesn't divide evenly – no
>>> e = 5                       common factors – relatively prime
>>> d = 1
>>> while (e*d % f != 1):
...     d = d + 1
...
>>> d
12545081
>>> M = 1234567                 M is original message, numerically
>>> M**e % n
39897957L
>>> pow(M, e, n)                computes M**e modulo n
39897957
>>> C = pow(M, e, n)            C is encrypted message (number)
>>> C
39897957
>>> pow(C, d, n)                decrypting message using
1234567                         private key pair (d, n)

>>> M = 42351359                another example
>>> C = pow(M, e, n)
>>> C
39992556
>>> pow(C, d, n)
42351359
```