

Key length and Key n-bit security

- RSA has very long keys, 1024, 2048 and 4096 are common
- Is it more secure than asymmetric crypto with key lengths of 56, 128, 192, 256 ?

➔ Key lengths **do not compare !**

RSA Key length	Effective key length
1,024	80
2,048	112
3,072	128
7,680	192
15,360	256

Other asymmetric cryptography schemes

Diffie-Hellman (precursor)

➡ No Authentication but good for key-exchange

El-Gamal

➡ Good properties for homomorphic encryption

Elliptic Curve Cryptography (widely used nowadays)

➡ Fast and small keys (190 bits equivalent to 1024 bits RSA)