

## Task T2

T2: Encrypt and Decrypt the Number 4

### 1: Encryption:

1. Use the private key
  - $k=3$
2. First, determine the public key by looking up  $M1(k)$ :
  - $M1(3)=1$
3. Now, to encrypt the number 4, find  $M2(M1(k),p)=M2(1,4)$ :
  - $M2(1,4)=2$
4. The encrypted result of 4 is 2.