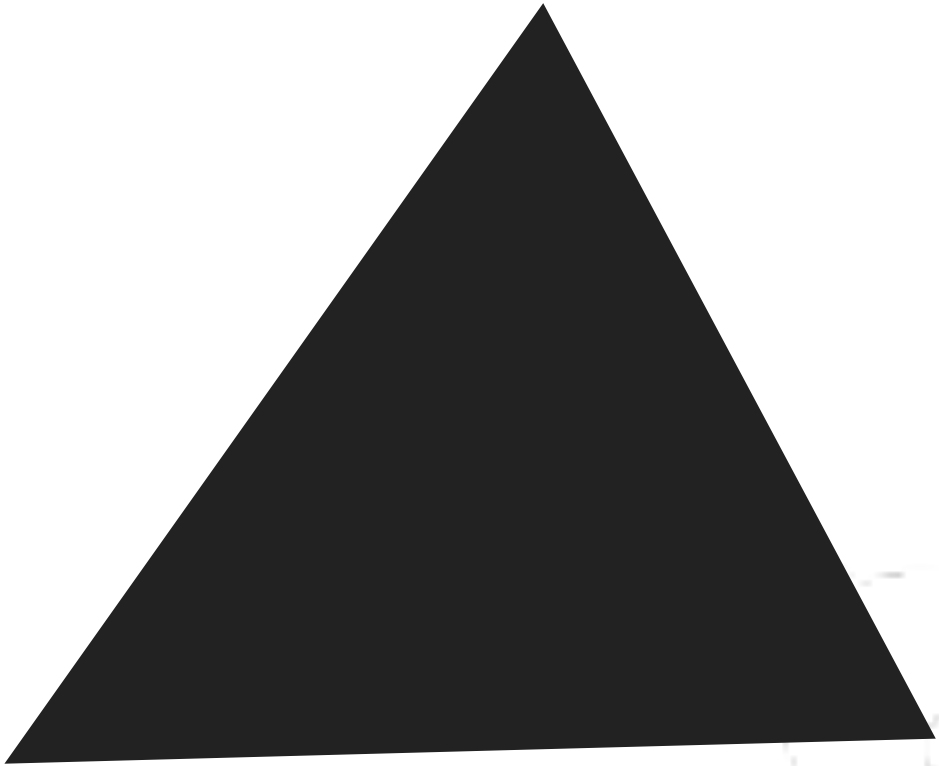
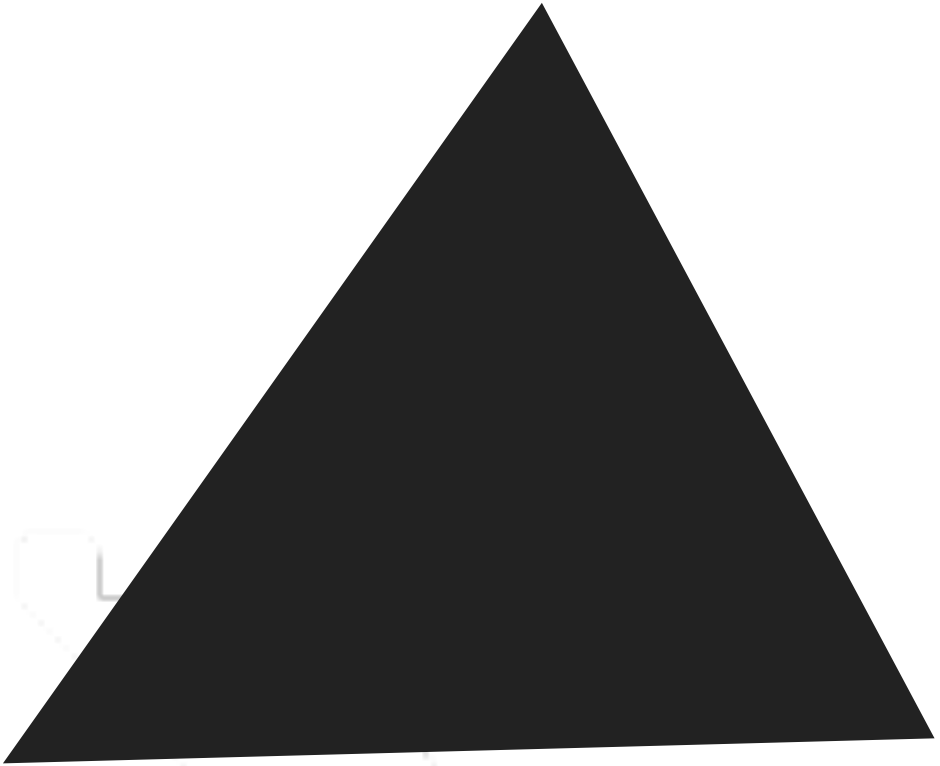
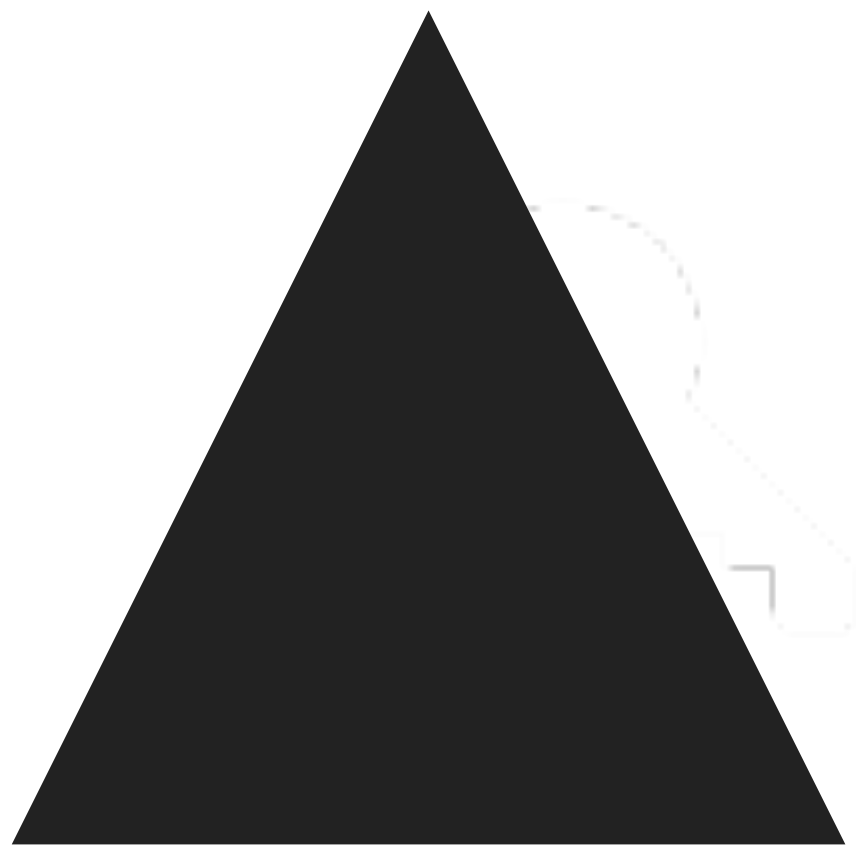
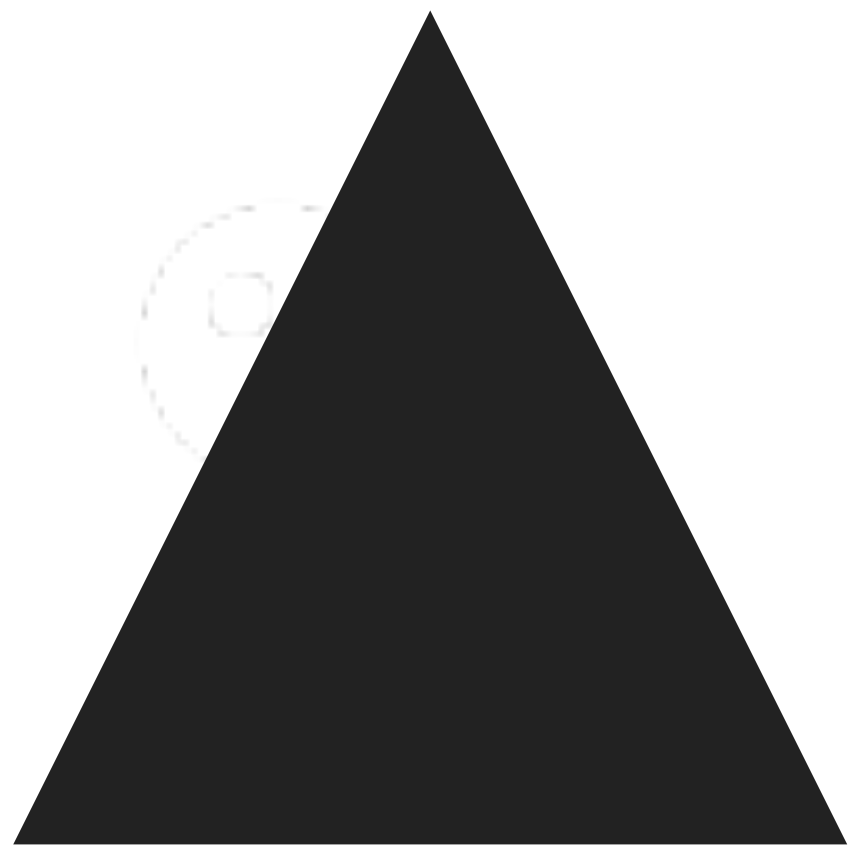
JENS NEUHALFEN









SECRET SHARING

SLEEP BETTER WITH CONTENT ENCRYPTION

72

Problem: What happens when Alice forgets her password?

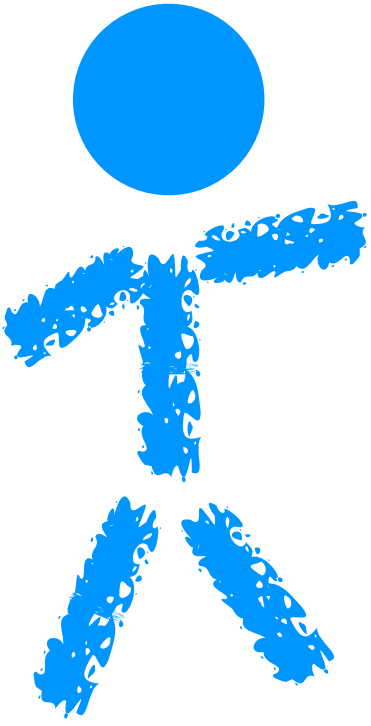
Solution: Use cryptographic secret sharing for recovery

Alice

Justus

Peter

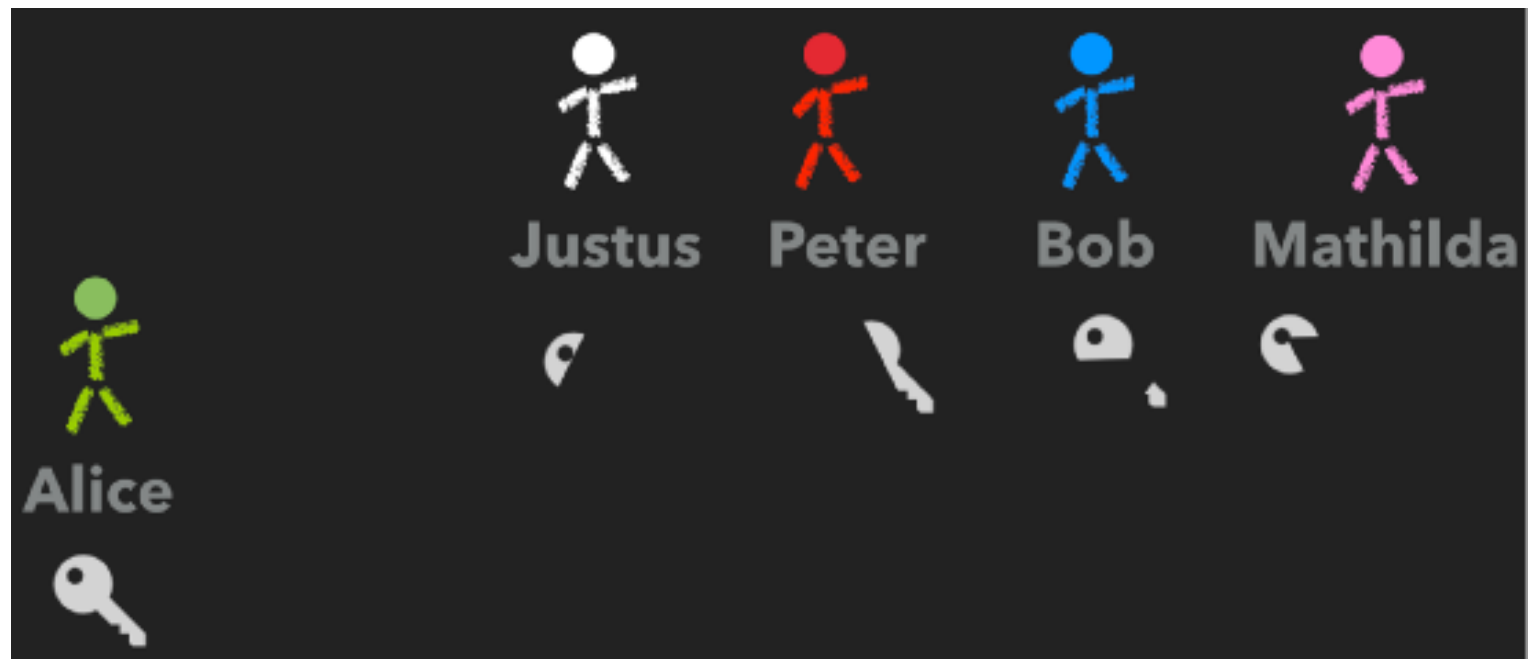
Mathilda



Bob

Alice will split her secret key (e.g. with Shamir) in such a way, that any three of her four trusted friends can restore the key.

Alice trusts her friends only so far. But she thinks it is very unlikely that three of them conspire together against her.


Justus
Peter
Bob
Mathilda
Alice

Problem: What happens when Alice forgets her password?

Solution: Use cryptographic secret sharing for recovery

Alice will split her secret key (e.g. with Shamir) in such a way,

that any three of her four trusted friends can restore the key.

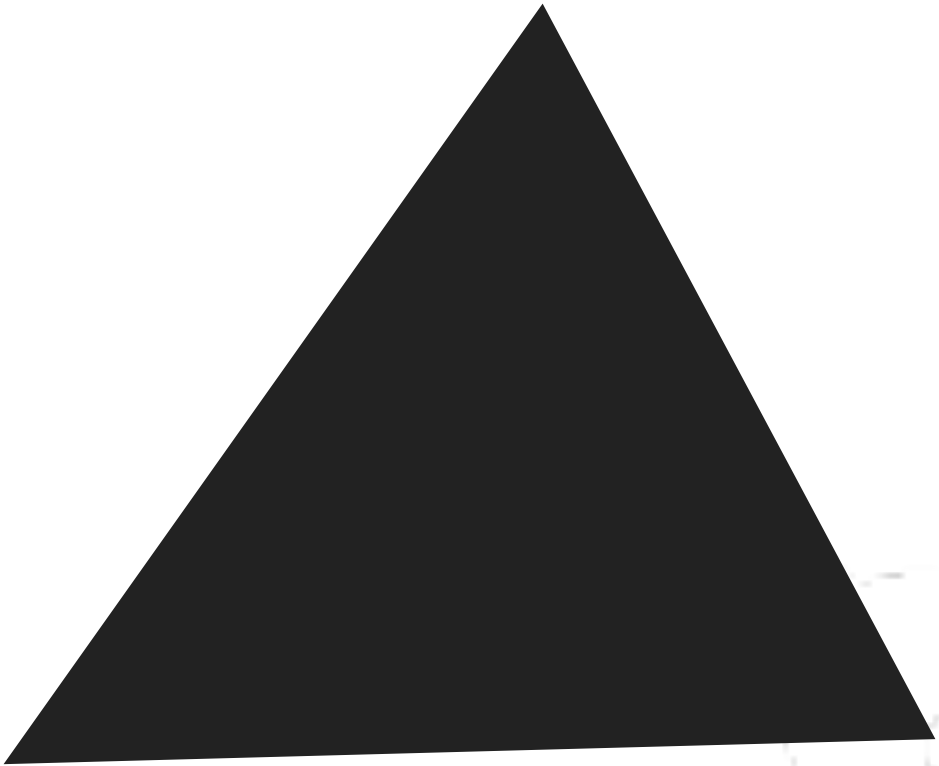
such, that the secret can be restored with

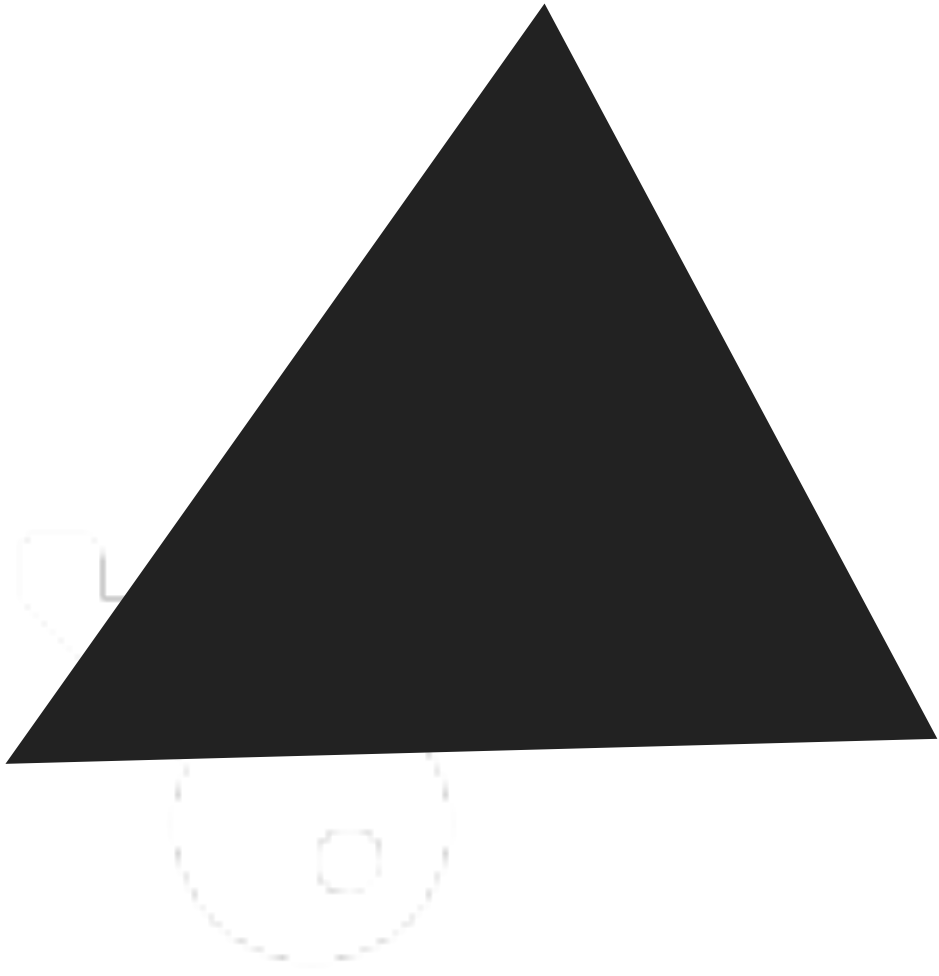
Secret sharing (“t out of n”) shares a secret

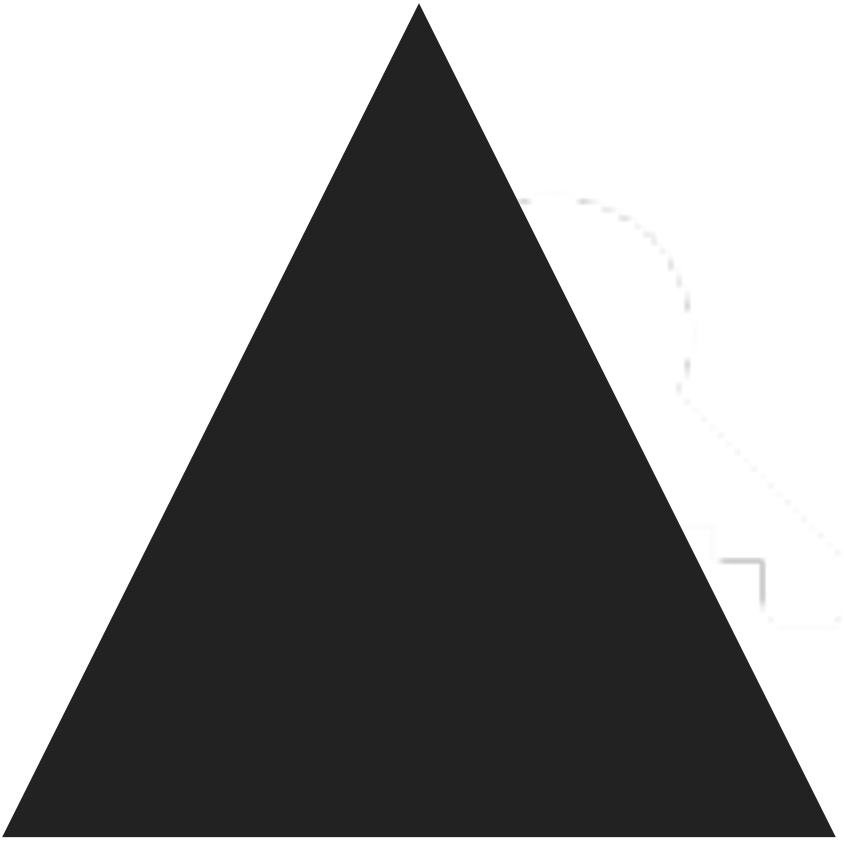
any t (here 3) of the n (here 4) parts.

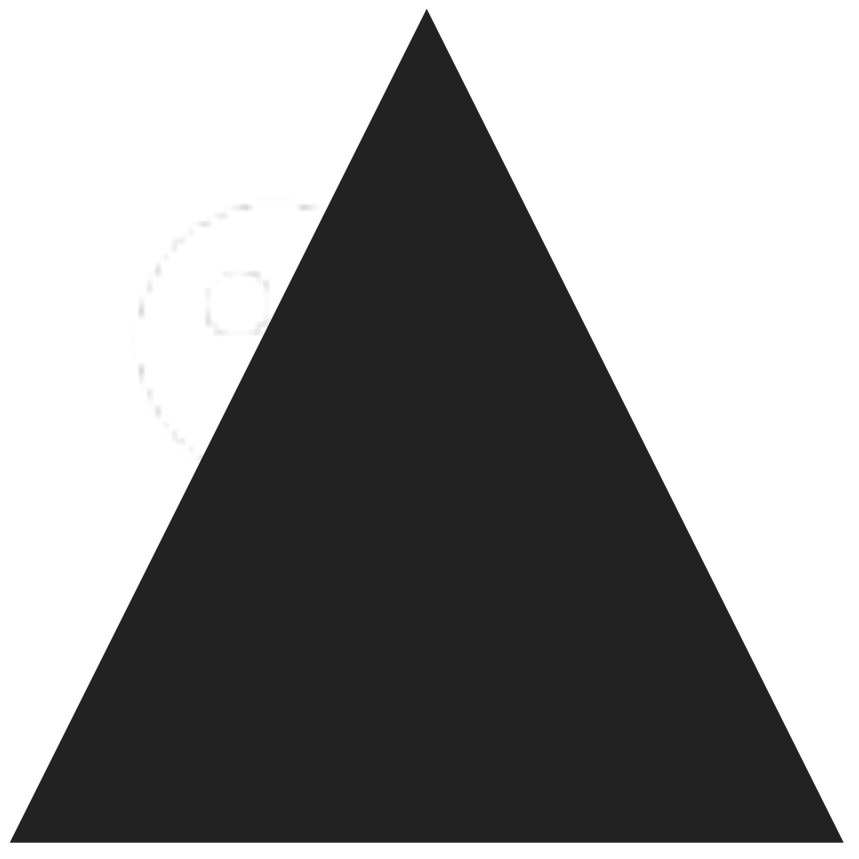
This can be used for secret recovery

without a single point of trust (failure).









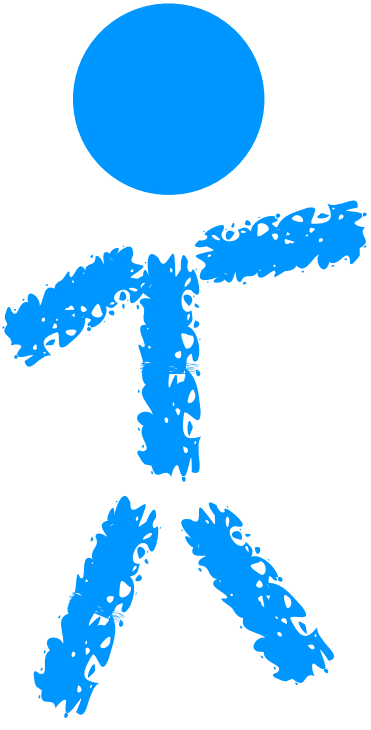
73

Alice

Justus

Peter

Mathilda



Bob