```
THEORY Natural
  DATA TYPES
    iNAT
    CONSTRUCTORS
      iZero()
      iSucc(iPrec : iNAT)
  OPERATORS
    mk_int expression (n : iNAT)
      recursive definition
        case n:
          iZero =>
            0
          iSucc(m) =>
            1 + mk_int(m)
  AXIOMATIC DEFINITIONS   xdb1:
    OPERATORS
      mk_iNAT expression (x : ℤ)  :  iNAT
        well−definedness x ∈ ℕ
    AXIOMS
      axm1: mk_iNAT(0) = iZero
      axm2: ∀x · x ∈ ℕ ⇒ mk_iNAT(1 + x) = iSucc(mk_iNAT(x))
      axm3:  ∀x · x ∈ ℕ ⇒ mk_int(mk_iNAT(x)) = x
  THEOREMS
    thm1:  ∀n · n ∈ iNAT ⇒ mk_int(n) ∈ ℕ
    thm2:  ∀n · n ∈ iNAT ⇒ mk_iNAT(mk_int(n)) = n
    thm3:  ∀n · n ∈ ℕ ⇒ (∃ni · ni ∈ iNAT ∧ mk_iNAT(n) = ni)
    thm4: ∀x · x ∈ ℕ1 ⇒ (∃ni · mk_iNAT(x) = iSucc(ni))
END
```