```
THEORY Monoid
  TYPE PARAMETERS M
  OPERATORS
    associative <predicate> (op: (M × M) → M)
      direct definition
        ∀ x, y, z · x ∈ M ∧ y ∈ M ∧ z ∈ M ⇒ op(x ↦ op(y ↦ z)) = op(op(x ↦ y) ↦ z)
    neutral <predicate> (op: (M × M) → M, e: M)
      well−definedness M ≠ ∅
      direct definition
        ∀ x · x ∈ M ⇒ (op(x ↦ e) = x ∧ op(e ↦ x) = x)
    Monoid <predicate> (op: (M × M) → M, e: M)
      well−definedness M ≠ ∅
      direct definition
        associative(op) ∧ neutral(op, e)
  THEOREMS
    neutralUnicity:
      ∀ op, e · op ∈ ((M × M) → M) ∧ e ∈ M ∧ Monoid(op, e) ⇒ (
        ∀ x · x ∈ M ∧ neutral(op, x) ⇒ x = e
      )
END
```