

JAM CHEATSHEET

0.1. **TODO.**

- E_T : TODO

0.2. **State.**

- σ : State Identifier
- Υ : State Transition Function (STF)

0.3. **Misc.**

- $y < x$: precedes operator, relation to indicate one term may be defined purely in terms of another
- \mathcal{U} : substitute-if-nothing function
- i, j : used for numerical indices
- \emptyset : nothing

0.4. **Sets.**

- x, y : item of a set or sequence
- \mathbf{s} : set
- $\wp(\mathbf{s})$: set power (section 3.3)
- $|\mathbf{s}|$: set cardinality (section 3.3)
- $f^\#$: function applied to all members of a set to yield a new set (section 3.3)
- \downharpoonright : set-disjointness relation (section 3.3)
- \iff : TODO (section 3.3)

- ∇ : indicates unexpected failure of an operation or that a value is invalid or unexpected (section 3.3)

0.5. **Numbers.**

- \mathbb{N} : denotes the set of naturals including zero
- \mathbb{N}_n : restricts the set of naturals to values less than n .
 - Formally, $\mathbb{N} = \{0, 1, \dots\}$ and $\mathbb{N}_n = \{x \mid x \in \mathbb{N}, x < n\}$
- \mathbb{N}_L : is equivalent to $\mathbb{N}_{2^{32}}$ and denotes the set of lengths of octet sequences that must have limited size to be stored practically
- $\%$: modulo operator
- $5 \div 3 = 1 \text{ R } 2$: remainder of quotient operation

0.6. **Integers.**

- \mathbb{Z} : denotes the set of integers
- $\mathbb{Z}_{a\dots b}$: denotes the set of integers within the interval $[a, b)$
 - Formally, $\mathbb{Z}_{a\dots b} = \{x \mid x \in \mathbb{Z}, a \leq x < b\}$ (e.g. $\mathbb{Z}_{2\dots 5} = \{2, 3, 4\}$).
 - $\mathbb{Z}_{a\dots +b}$ denotes the offset/length form of this set, which is a short form of $\mathbb{Z}_{a\dots a+b}$.