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| --- | --- |
|  | Proofs |
| Function | First(x)First(y)  {$}[First(assntmt)First(ifstmt)First(loop)First(read)First(output)First(funcall)]  = {$}{X,Y,Z,I,W,R,O,C}= |
| Statemt | [First(assntmt)First(ifstmt)First(loop)First(read)First(output)First(funcall)]  = MUTUALLY DISJOINT |
| Assnmt | Trivial |
| Ifstmt | First(x)First(y)  FIRST(statemt){% &}= { X,Y,Z,I,W,R,O,C } {%,&}=  First(a) First(b)  First(statemt){&}  { X,Y,Z,I,W,R,O,C } {&}=  First(c)First(d)  {&}{%}= |
| Loop | First(x)First(y)  First(statemt){T}  { X,Y,Z,I,W,R,O,C } {T}= |
| Read | First(x)First(y)  {;}{,}= |
| Output | First(x)First(y)  {;}{,}= |
| funcall | Trivial |
| Comprsn | Trivial |
| Exprsn | First(x)First(y)  Follow(exprsn) {+} = {} {+} = |
| Factor | First(x)First(y)  Follow(factor) {\*} = {} {\*} = |
| Oprnd | First(x)First(y)First(z)  {(}First (ident)First (integer)  {(}First (X,Y,Z)First (0,1,2,3,4,5,6,7)=  = pairwise disjoint |
| Opratr | Trivial |
| Ident | Follow(ident) First(char) = {} = |
| Chr(char) | First(x)First(y)  First(letter) )First(digit)  {X,Y,Z}){0,1,2,3,4,5,6,7}=  Pairwise disjoint |
| integer | First(x)First(y)  Follow(integer) First(digit) = |
| Letter | Trivial |
| digit | Trivial |