Chapter 6 Semantic Analysis

Ex 6.7

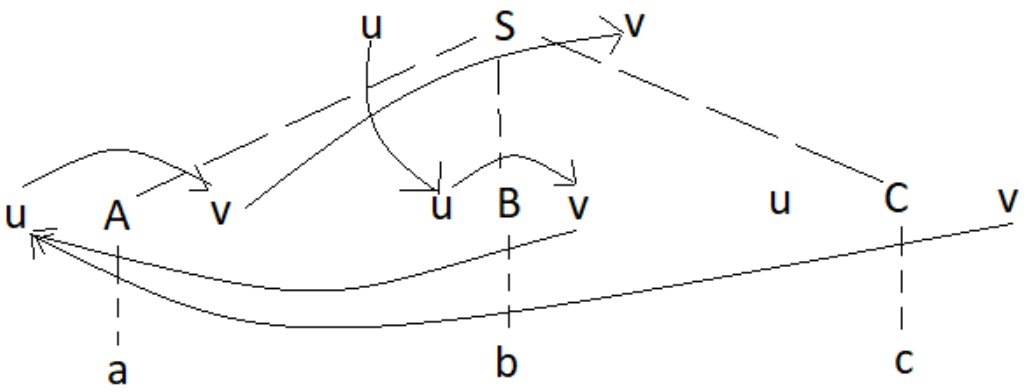
decl -> var-list : type	var-list.dtype = type.dtype
var-list1 -> var-list2, id	var-list2.dtype = var-list1.dtype id.dtype = var-list1.dtype
var-list -> id	id.dtype = var-list.dype
type -> integer	type.dtype = integer
type -> real	type.dtype = real

Ex 6.8

decl -> id var-list	id.dtype = var-list.dtype
var-list1 -> , id var-list2	var-list1.dtype = var-list2.dtype id.dtype = var-list2.dtype
var-list -> : type	var-list.dtype = type.dtype
type -> integer	type.dtype = integer
type -> real	type.dtype = real

Ex 6.13

a.



C.v = 1

B.u = S.u

B.v = B.u

A.u = B.v + C.v

A.v = 2 * A.u

S.v = A.v

b.

C.v = 1

B.u = S.u = 3

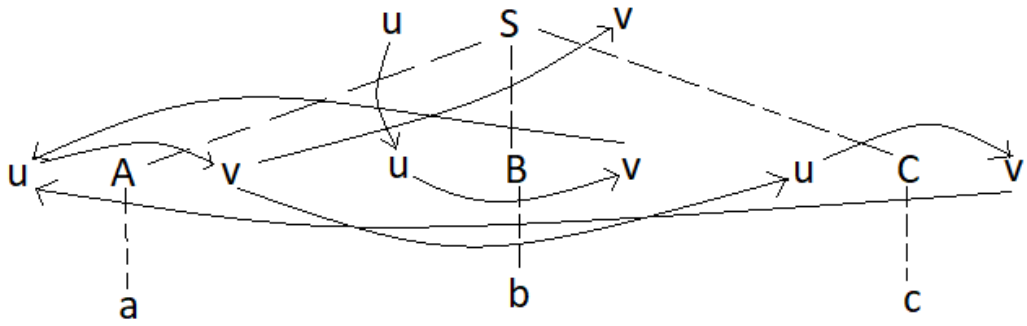
B.v = B.u = 3

A.u = B.v + C.v = 4

A.v = 2 * A.u =8

S.v = A.v = 8

c.



S.u = 3

B.u = S.u = 3

B.v = B.u = 3

But A.u cannot be calculated because C.v is unknown.

There is a circle.

So the value of S.v cannot be calculated.