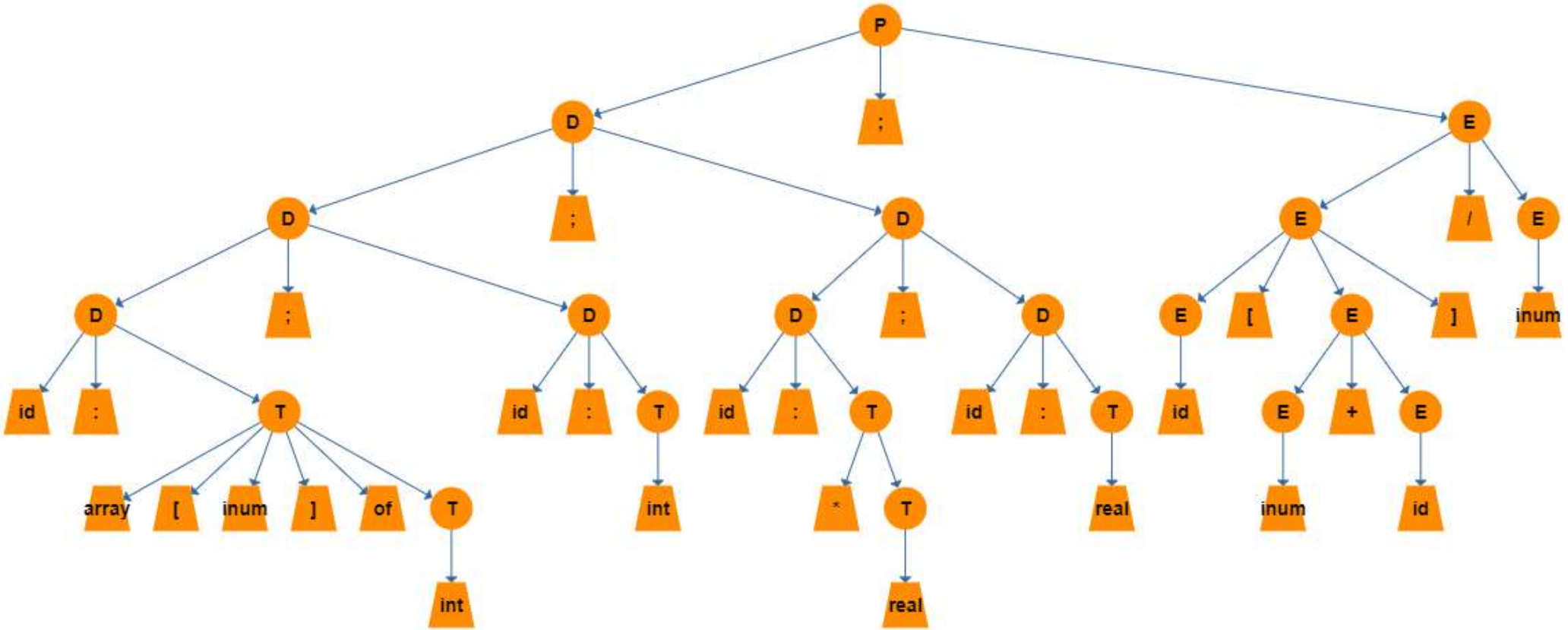
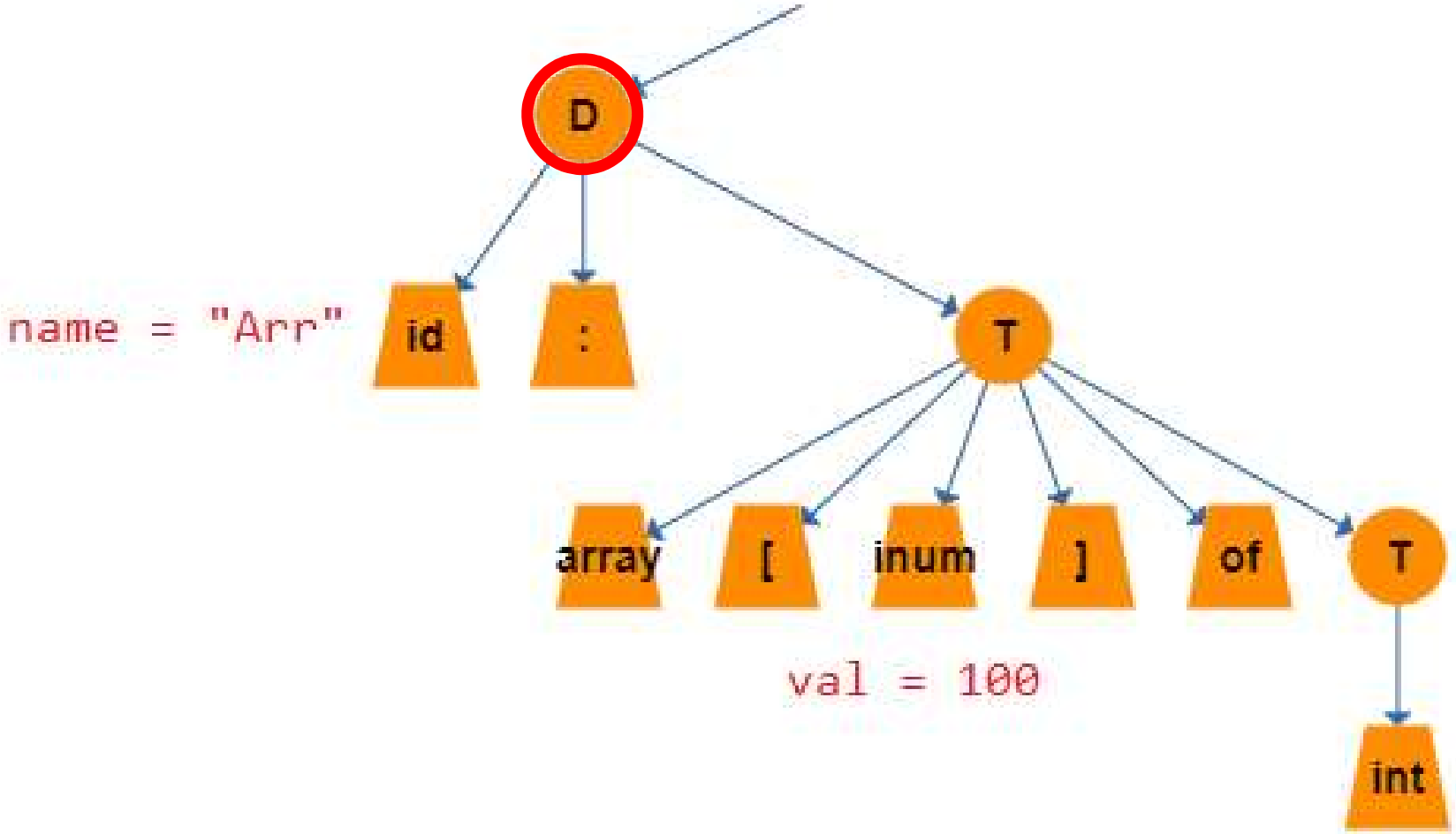
דוגמא1

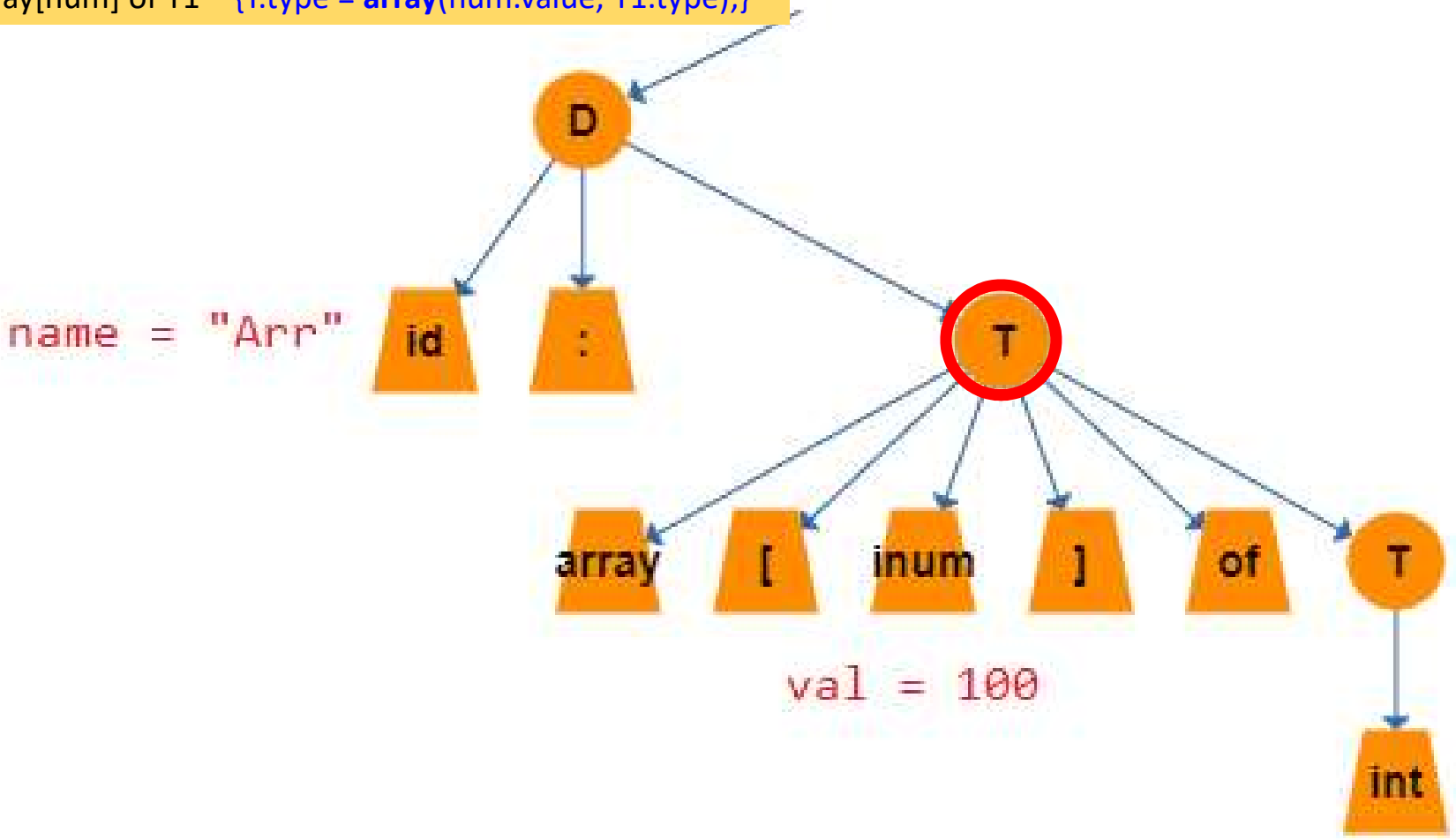
```
Arr:  array[100]  of  int;
xi:  int;
rp:  *real;
r:  real;

Arr[12 + xi] / 125
```


P
D
;
E
D
;
D
E
/
E
D
;
D
D
;
D
E
[
E
]
inum
id
:
T
id
:
T
id
:
T
id
:
T
id
E
+
E
array
[
inum
]
of
T
int
*
T
real
inum
id
int
real

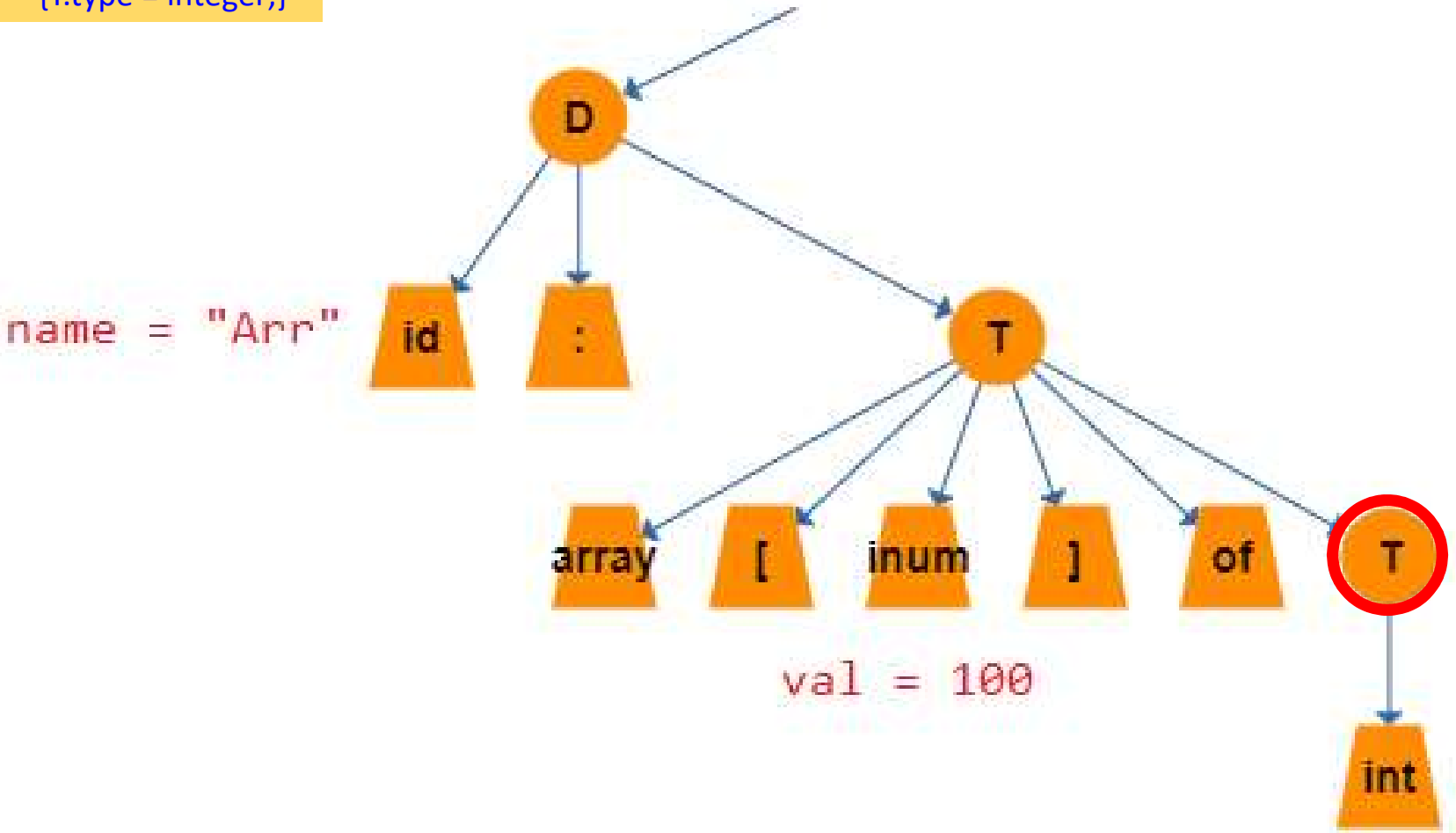
D→ id: T {inseret(id.name, T.type) }



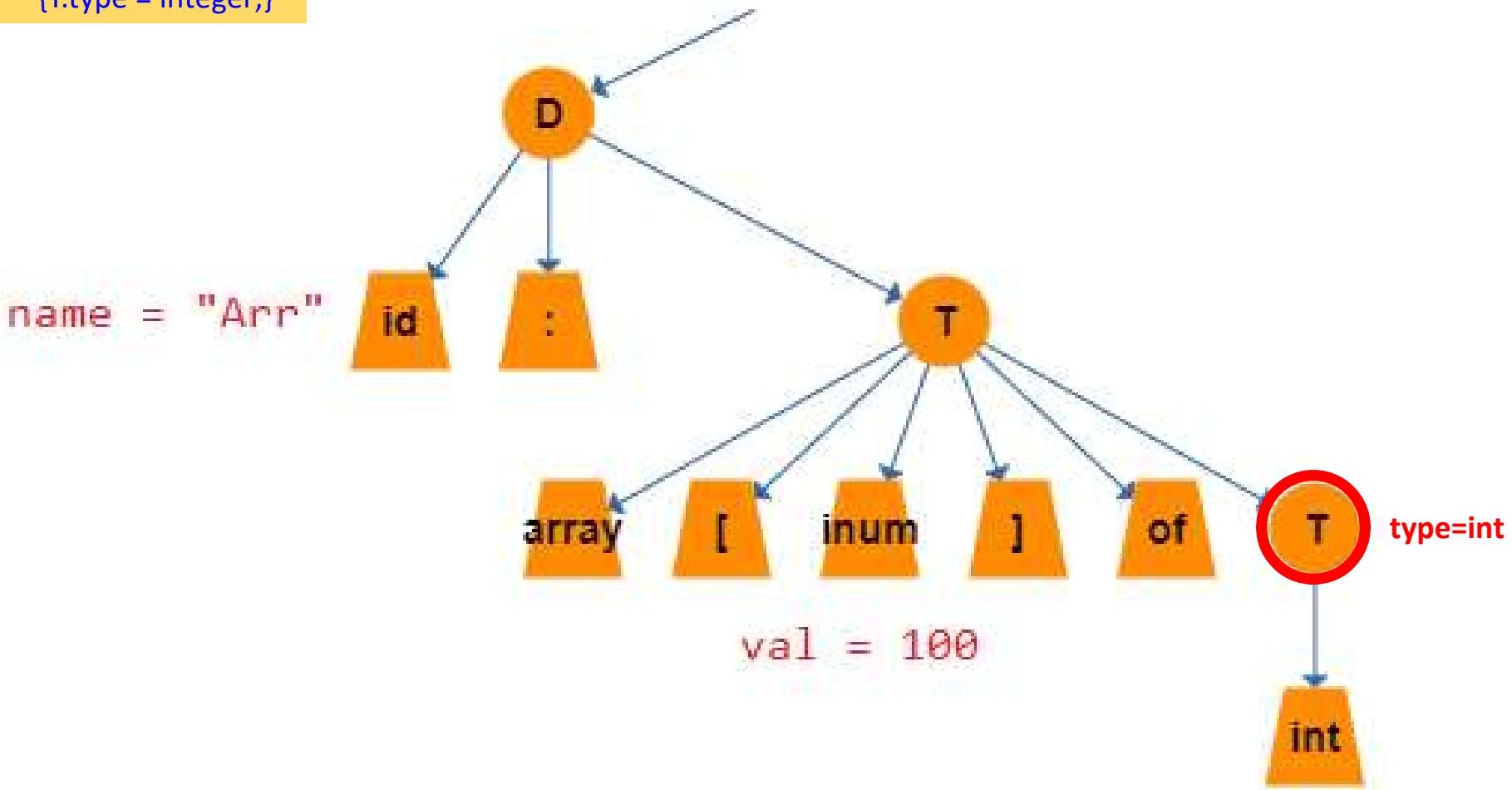
T→ array[num] of T1 {T.type = **array**(num.value, T1.type);}



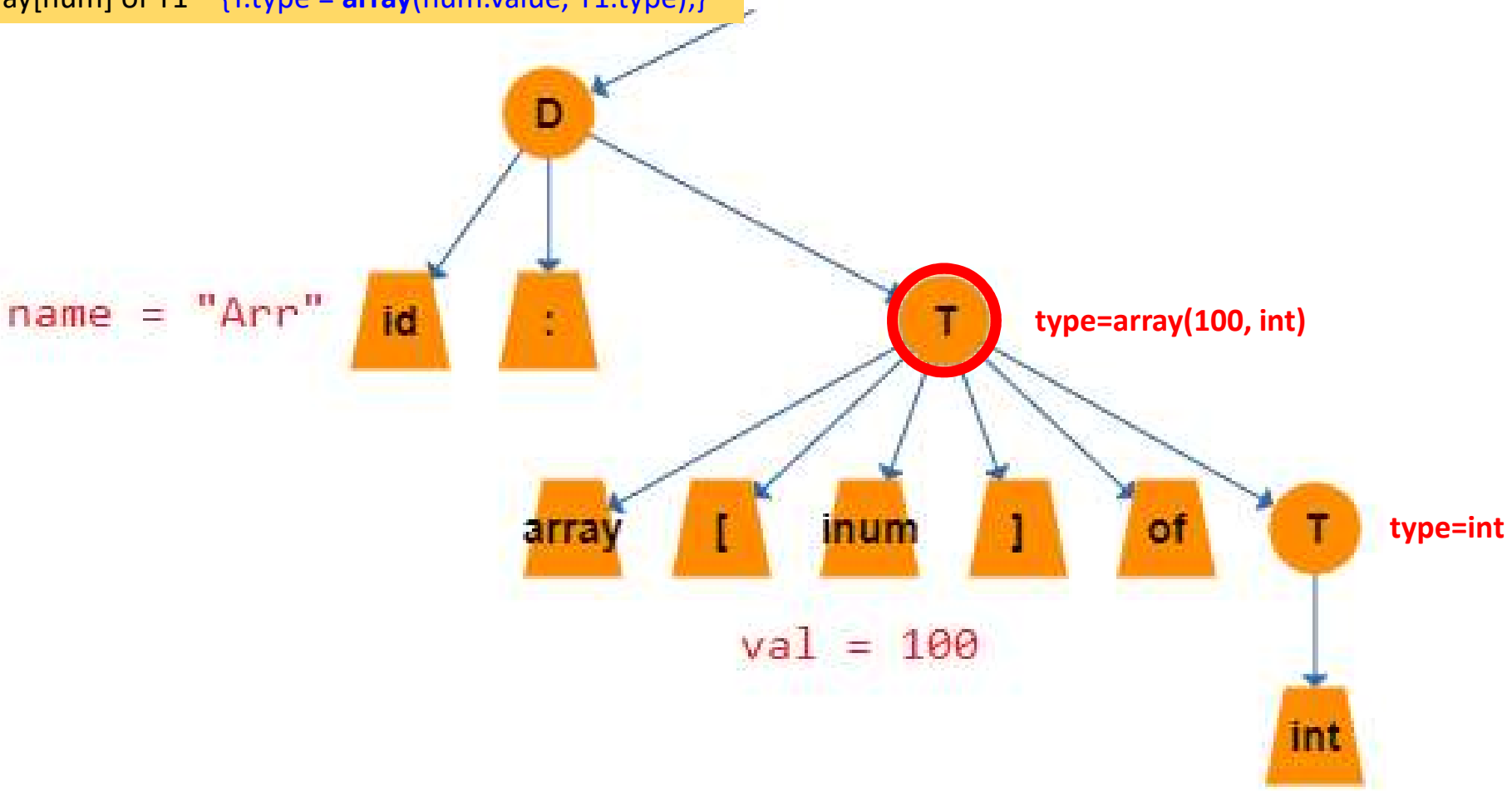
T→ int {T.type = integer;}



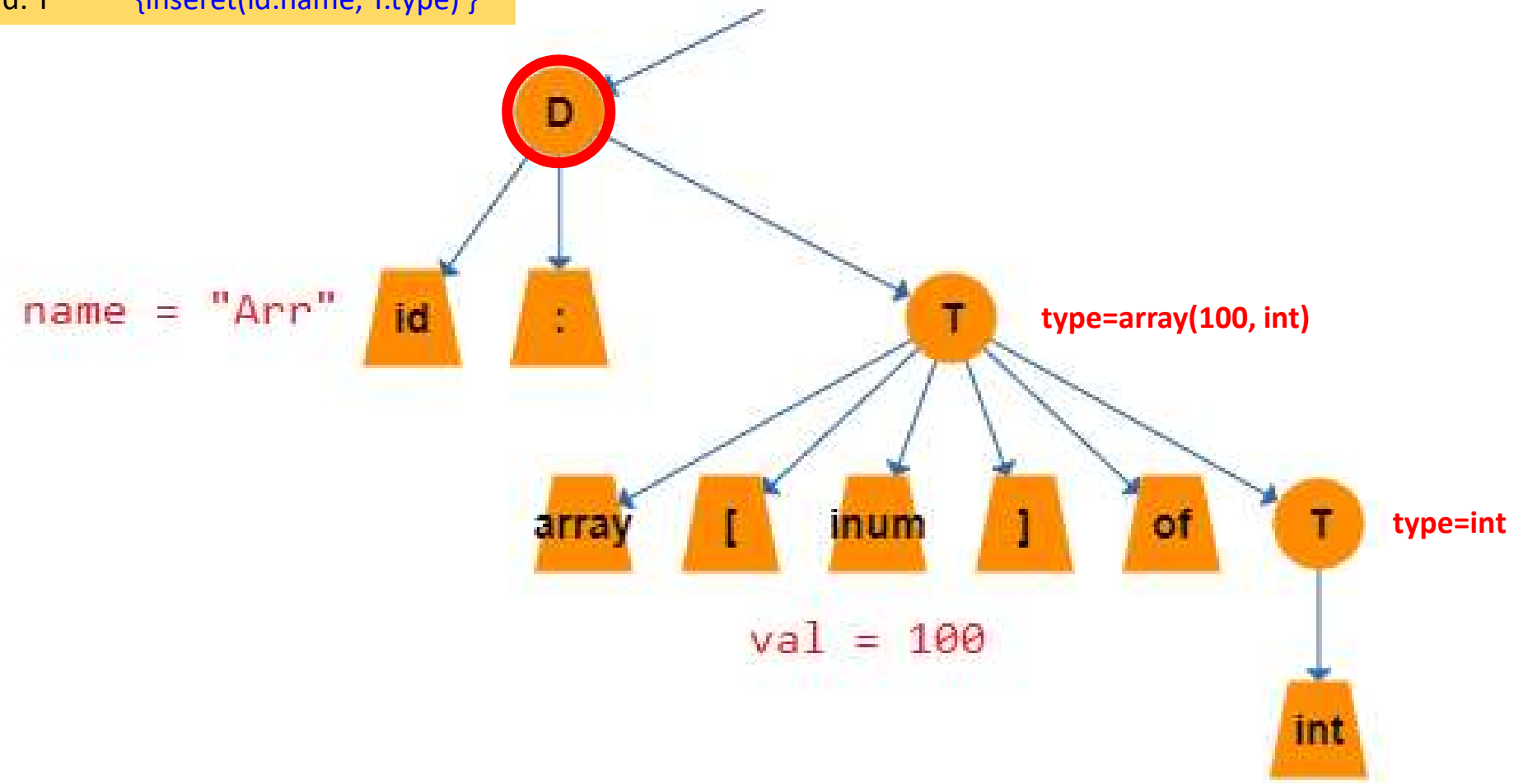
T→ int {T.type = integer;}



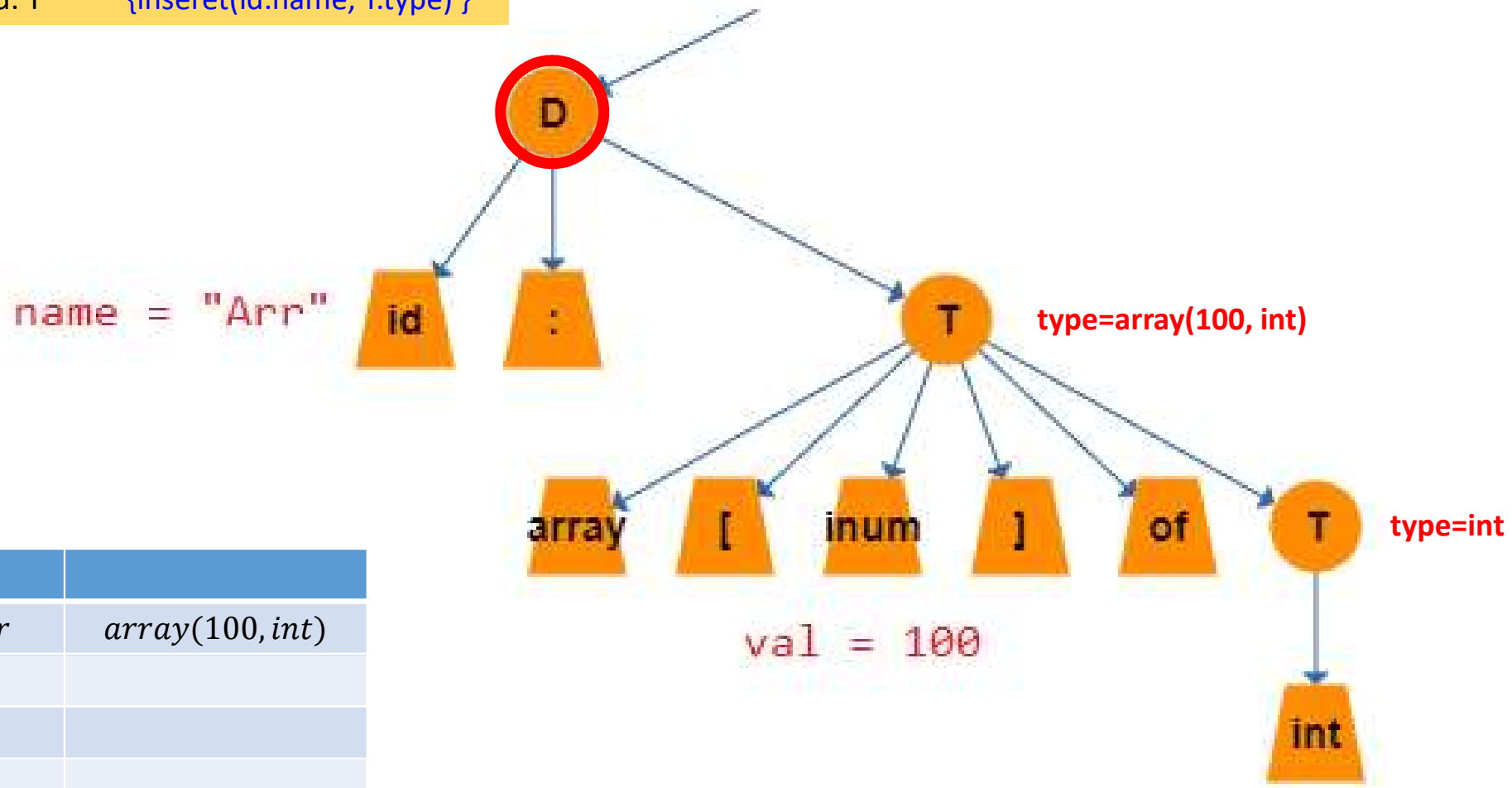
T→ array[num] of T1 {T.type = **array**(num.value, T1.type);}



D→ id: T {inseret(id.name, T.type) }



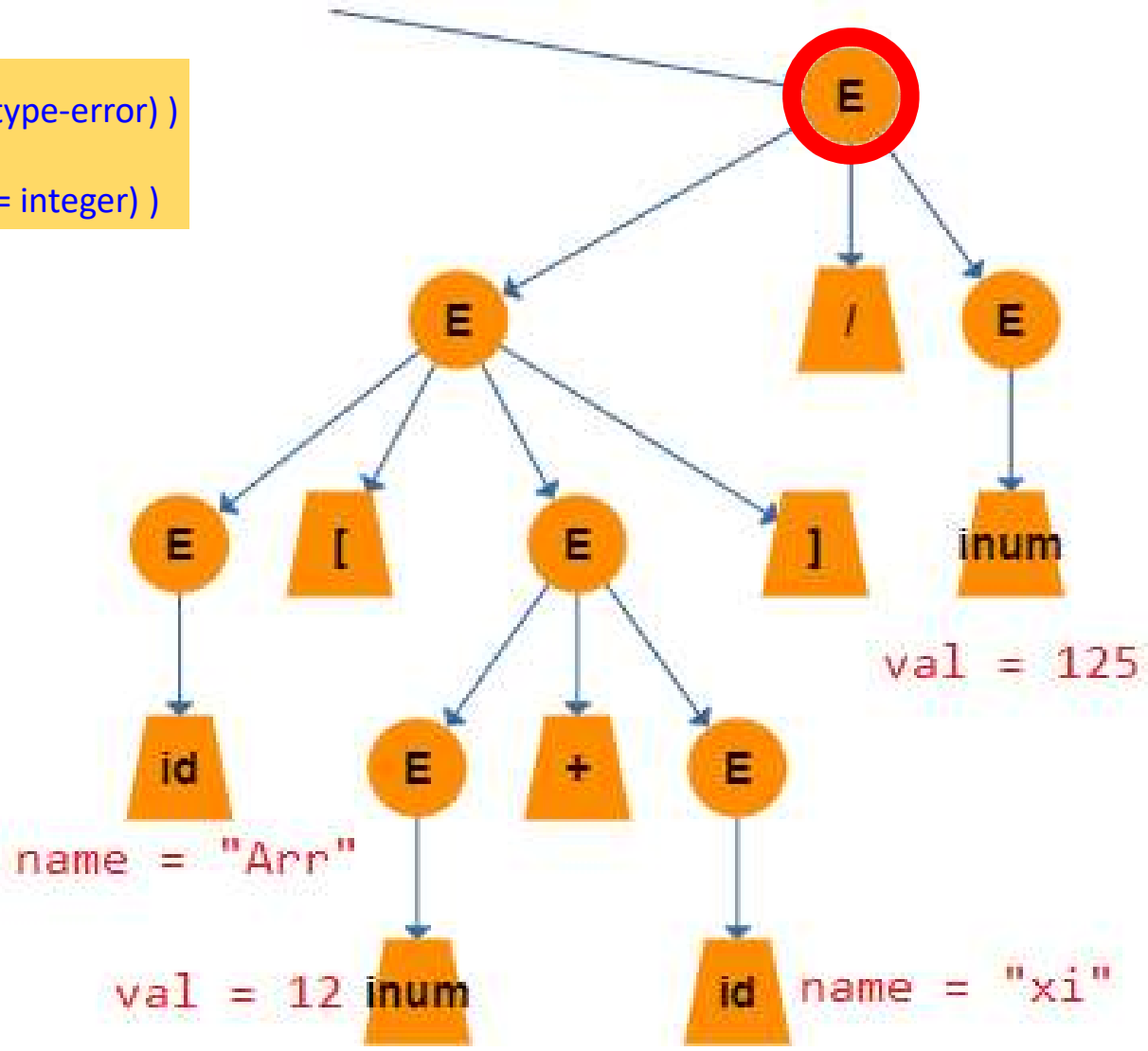
D→ id: T {inseret(id.name, T.type) }



Arr	$array(100, int)$

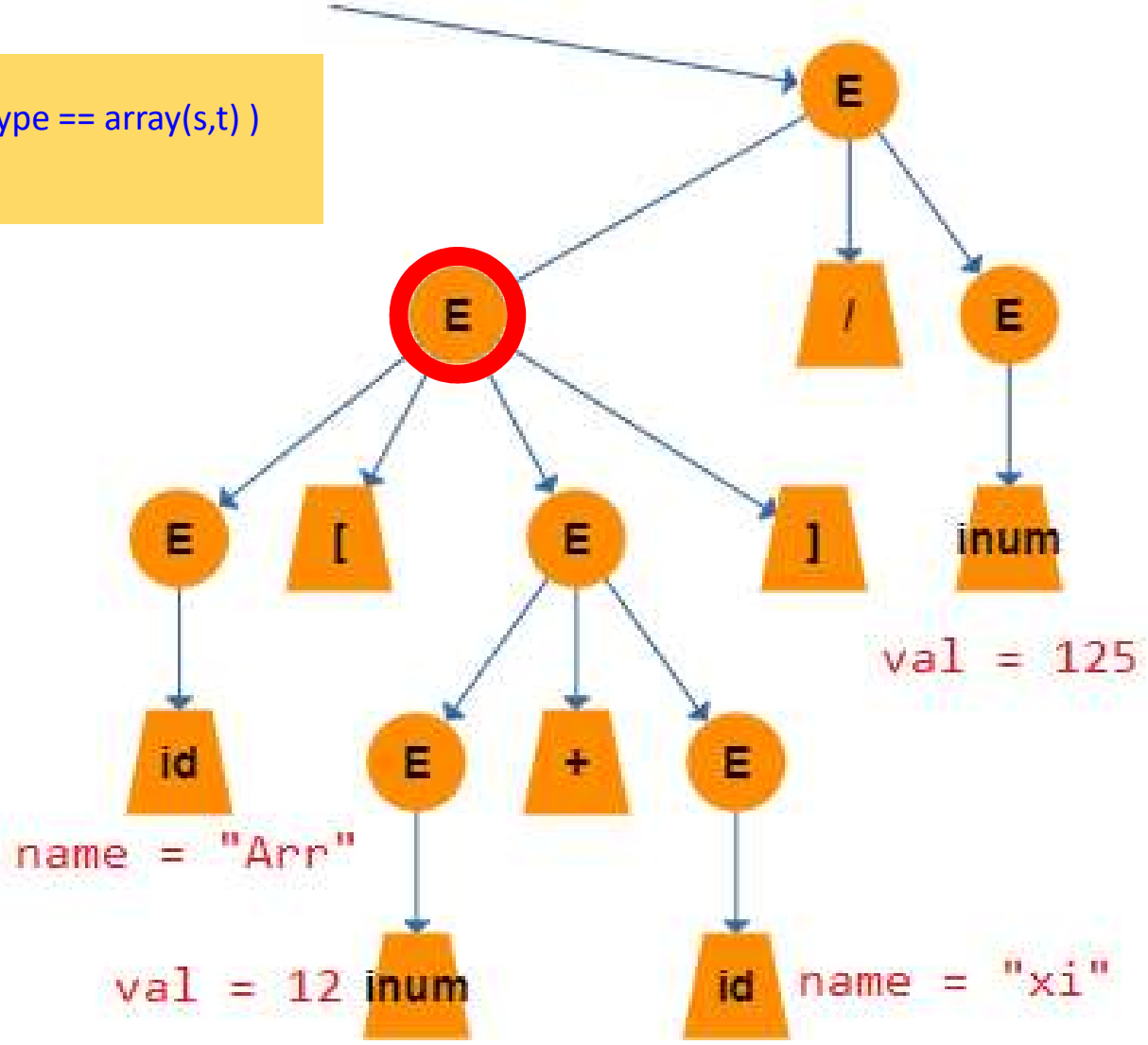
```
E→ E1 / E2
 {E.type =
  if ( (E1.type == type-error) || (E2.type == type-error) )
     then type-error;
  elseif ( (E1.type == integer) && (E2.type == integer) )
     then integer;     // div
  else
    real;
}
```

Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$



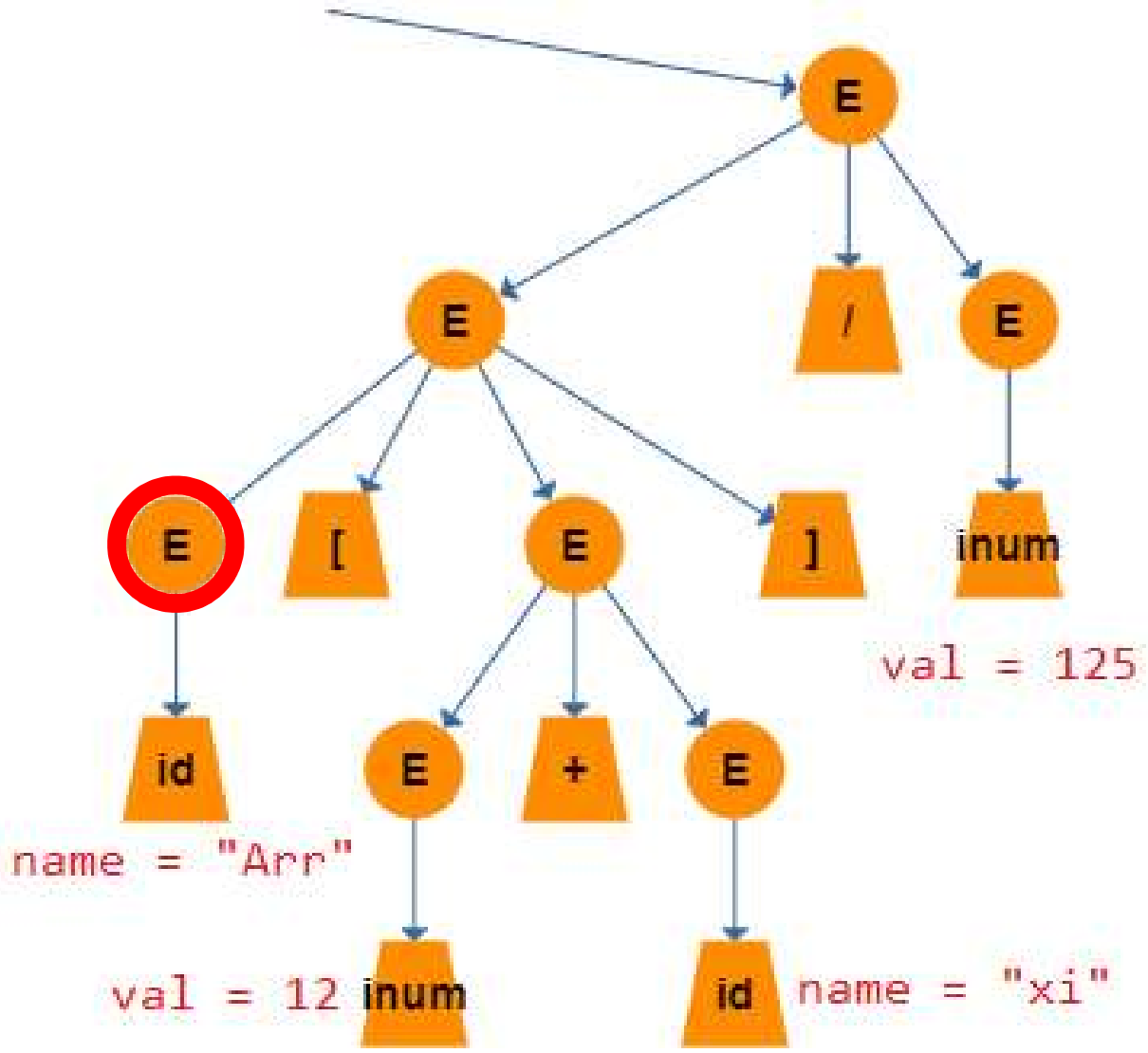
E→ E1[E2]
{ E.type =
if ((E2.type == integer) && (E1.type == array(s,t))
then t;
else type-error;
}

Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

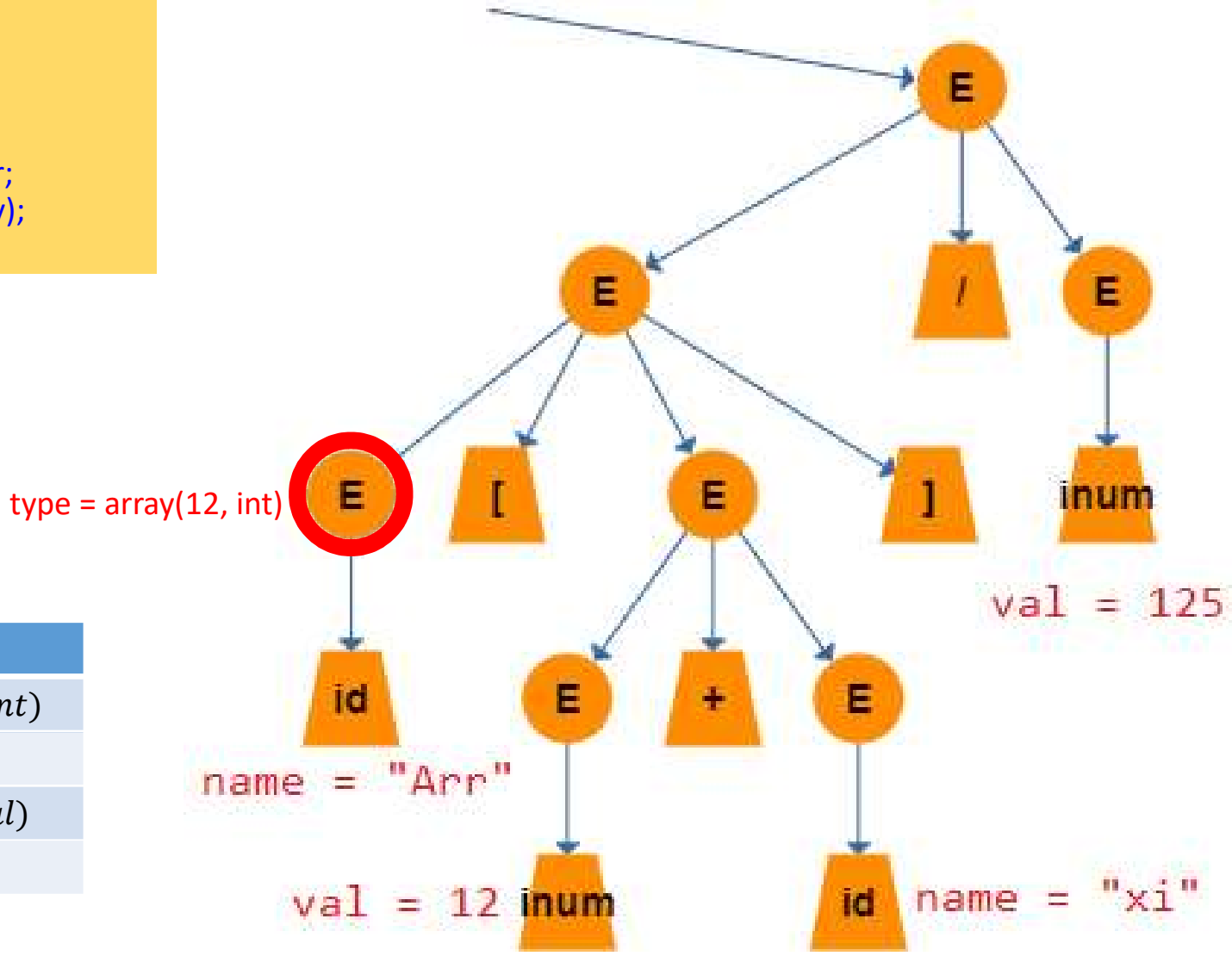


```
E→ id
{ entry = find(id.name);
   E.type =
          if (entry == null)
                then type-error;
          else get_type(entry);
}
```

Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$



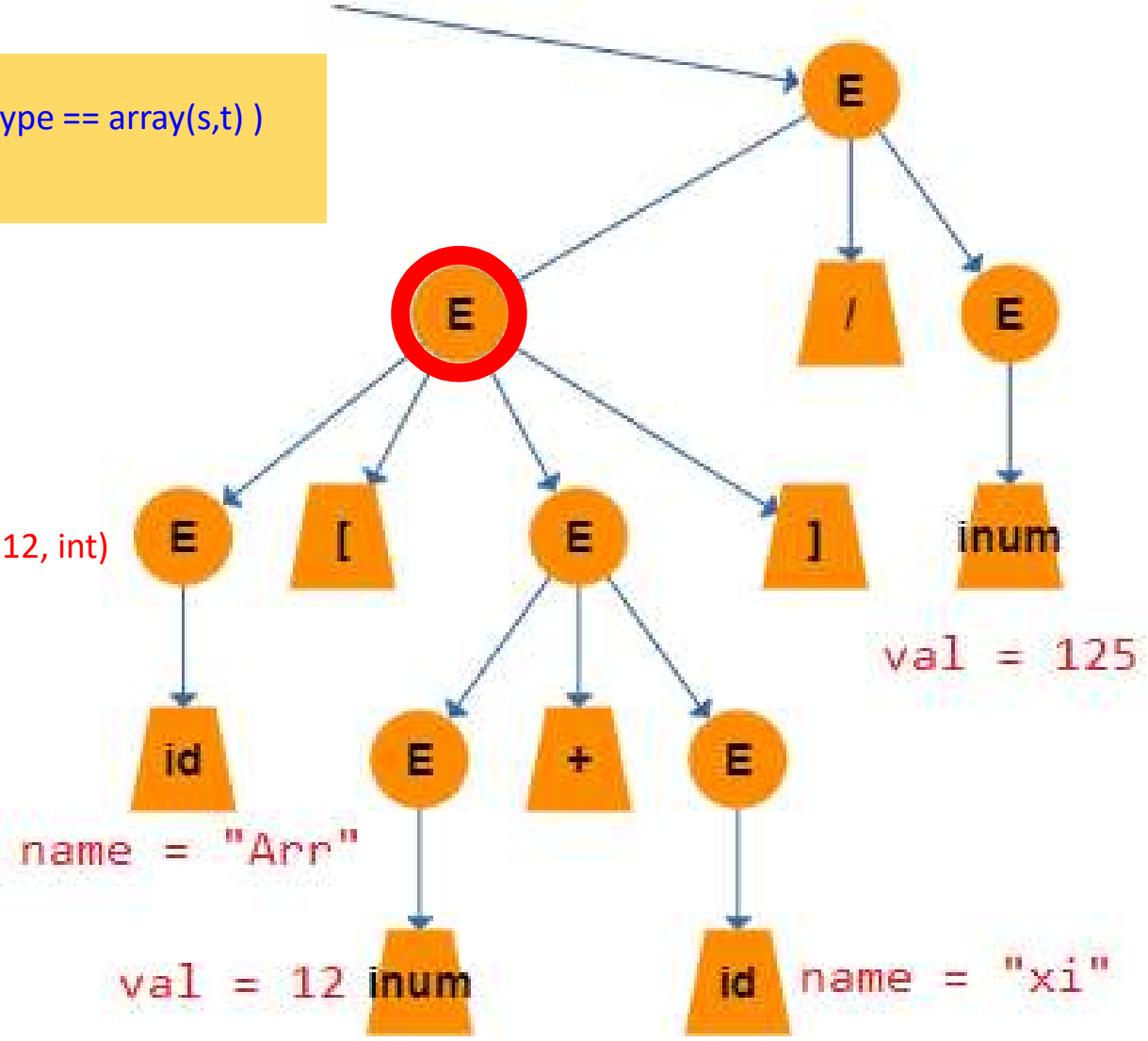
```
E→ id
{ entry = find(id.name);
   E.type =
          if (entry == null)
                then type-error;
          else get_type(entry);
}
```



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

E→ E1[E2]
{ E.type =
if ((E2.type == integer) && (E1.type == array(s,t))
then t;
else type-error;
}

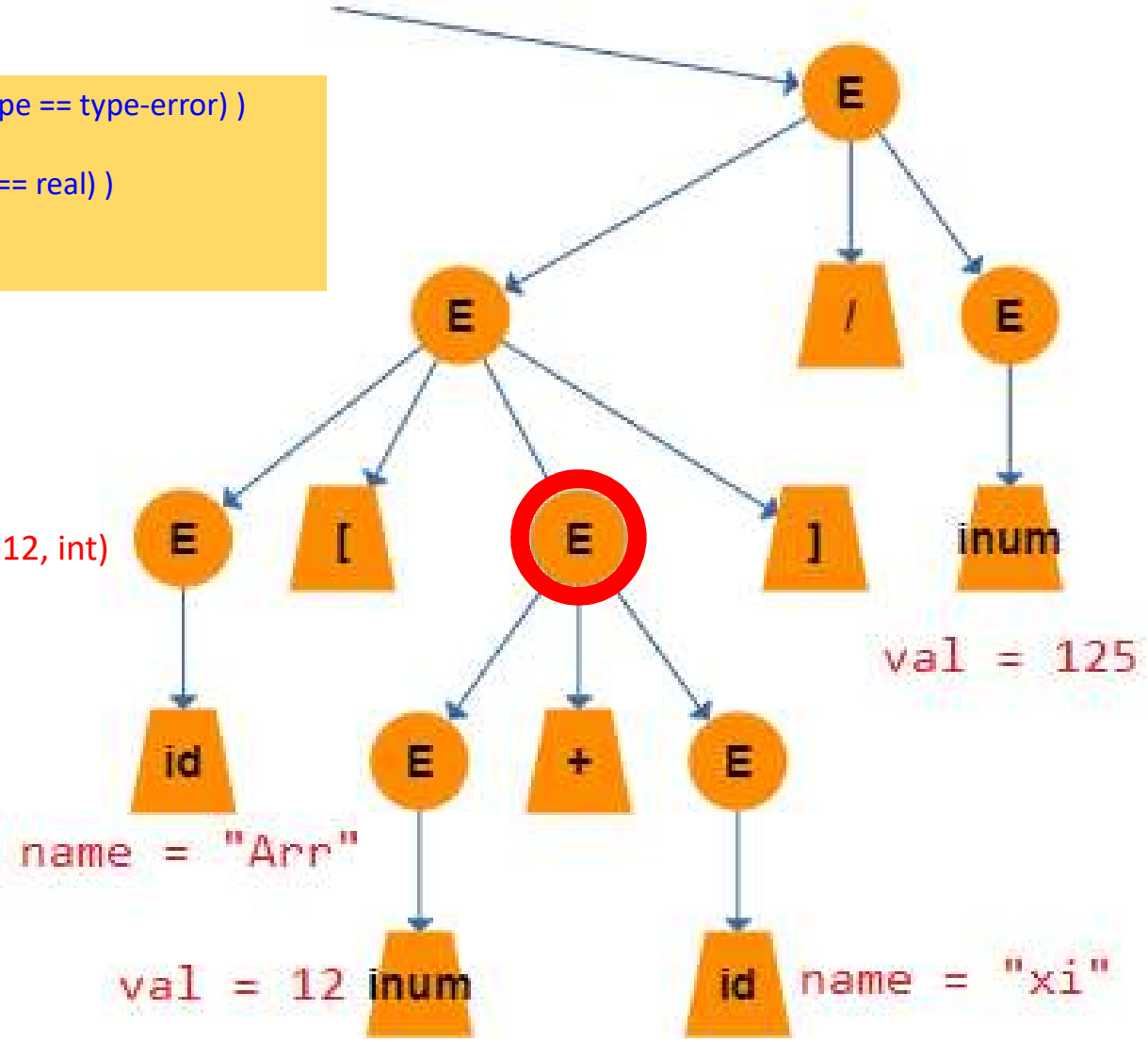
type = array(12, int)



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

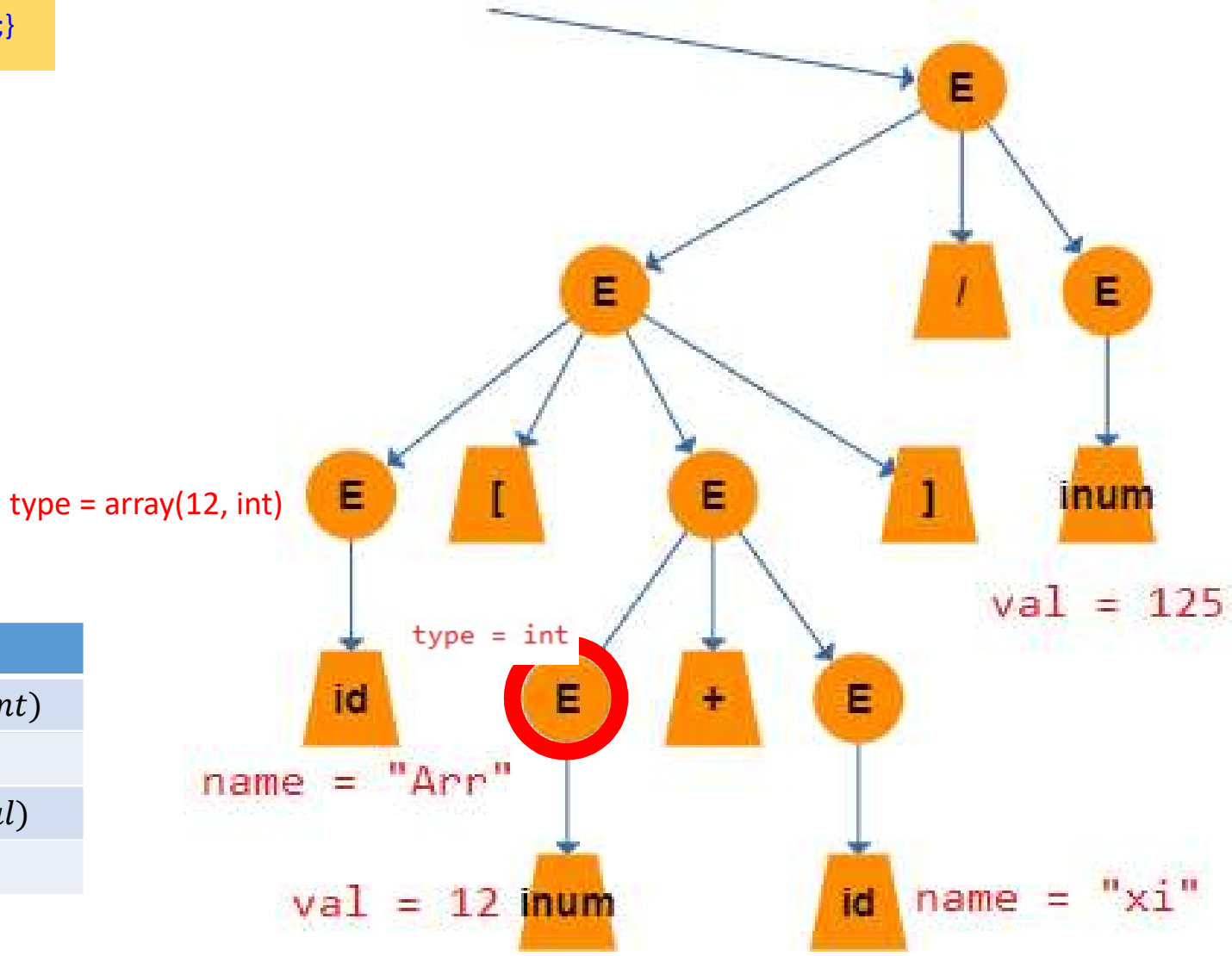
```
E→ E1 + E2
{E.type =
            if ( (E1.type == type-error) || (E2.type == type-error) )
                  then type-error;
            elseif ( (E1.type == real) || (E2.type == real) )
                  then real;
            else
                  integer;
}
```

type = array(12, int)



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

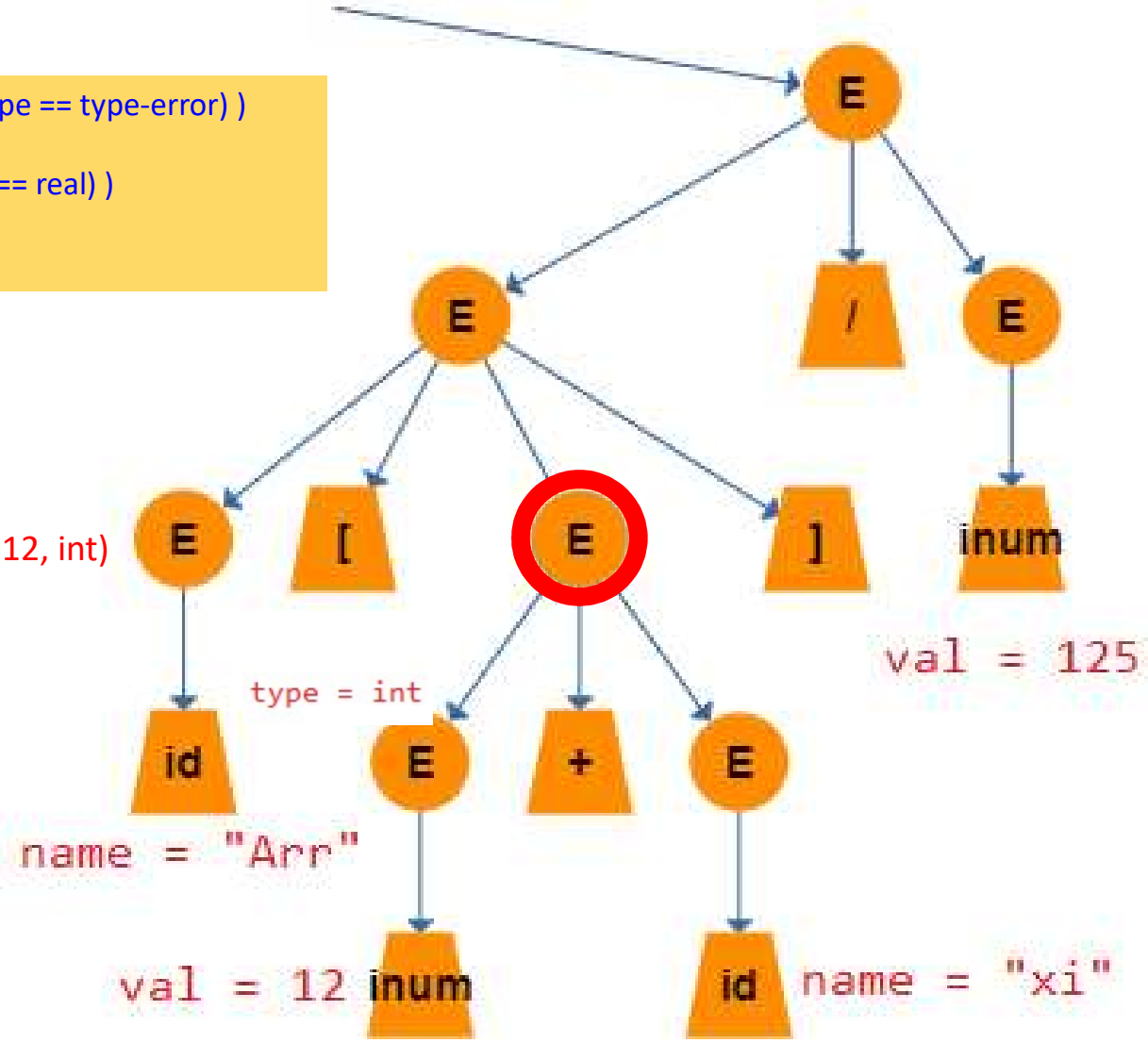
E→ int_num {E.type = integer;}



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

```
E→ E1 + E2
{E.type =
            if ( (E1.type == type-error) || (E2.type == type-error) )
                  then type-error;
            elseif ( (E1.type == real) || (E2.type == real) )
                  then real;
            else
                  integer;
}
```

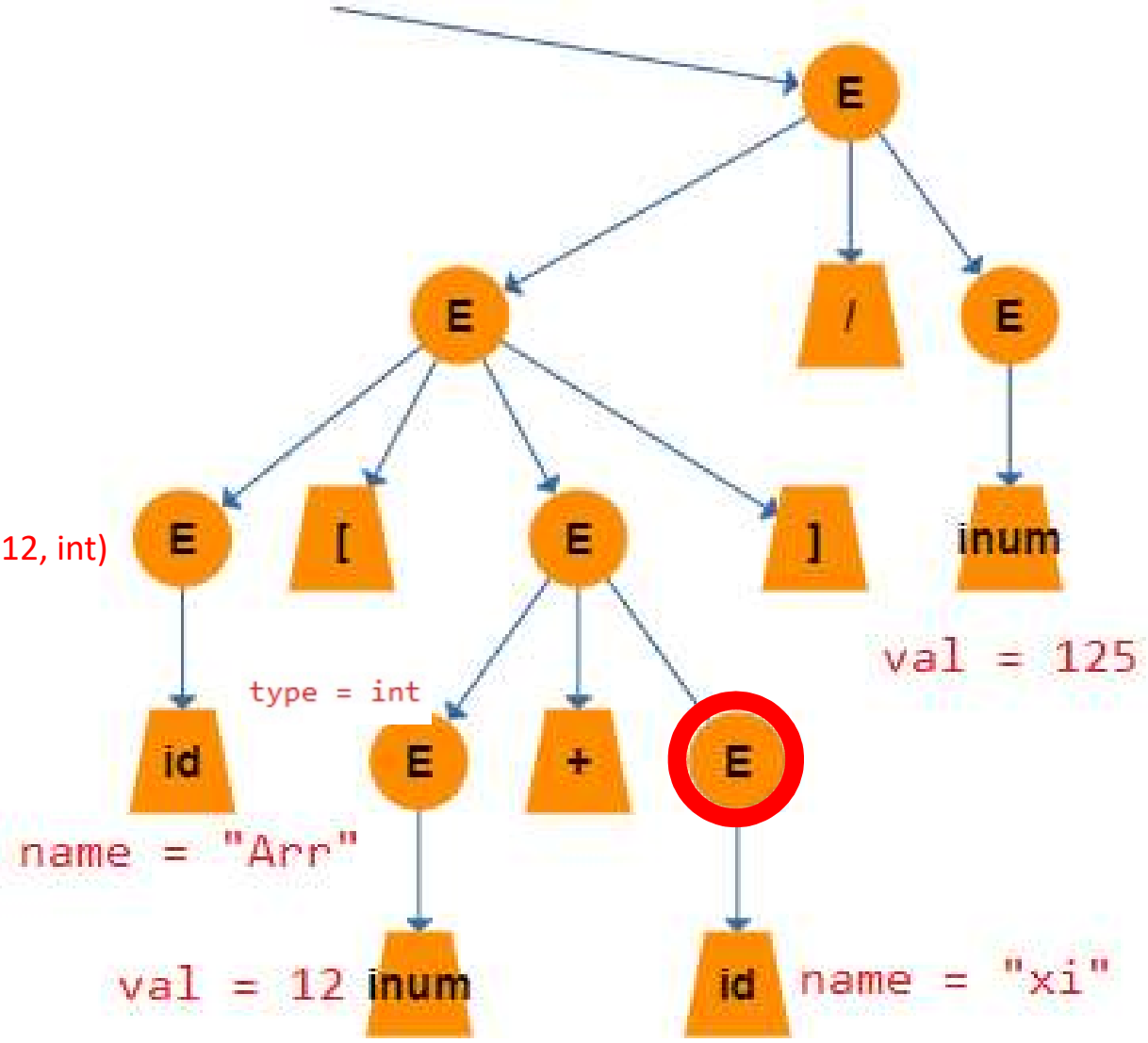
type = array(12, int)



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

E→ id
{ entry = find(id.name);
E.type =
if (entry == null)
then type-error;
else get_type(entry);
}

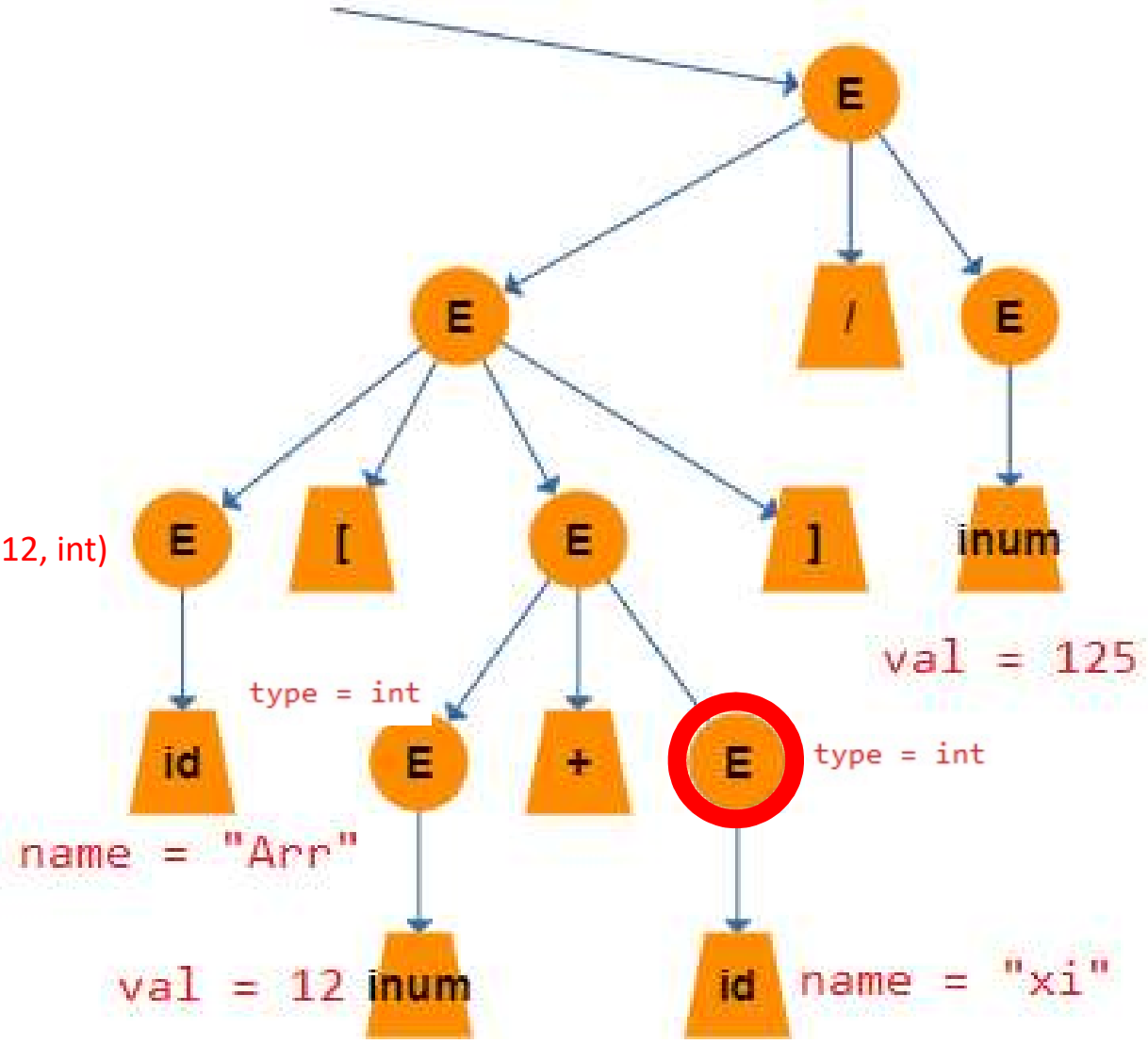
type = array(12, int)



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

E→ id
{ entry = find(id.name);
E.type =
if (entry == null)
then type-error;
else get_type(entry);
}

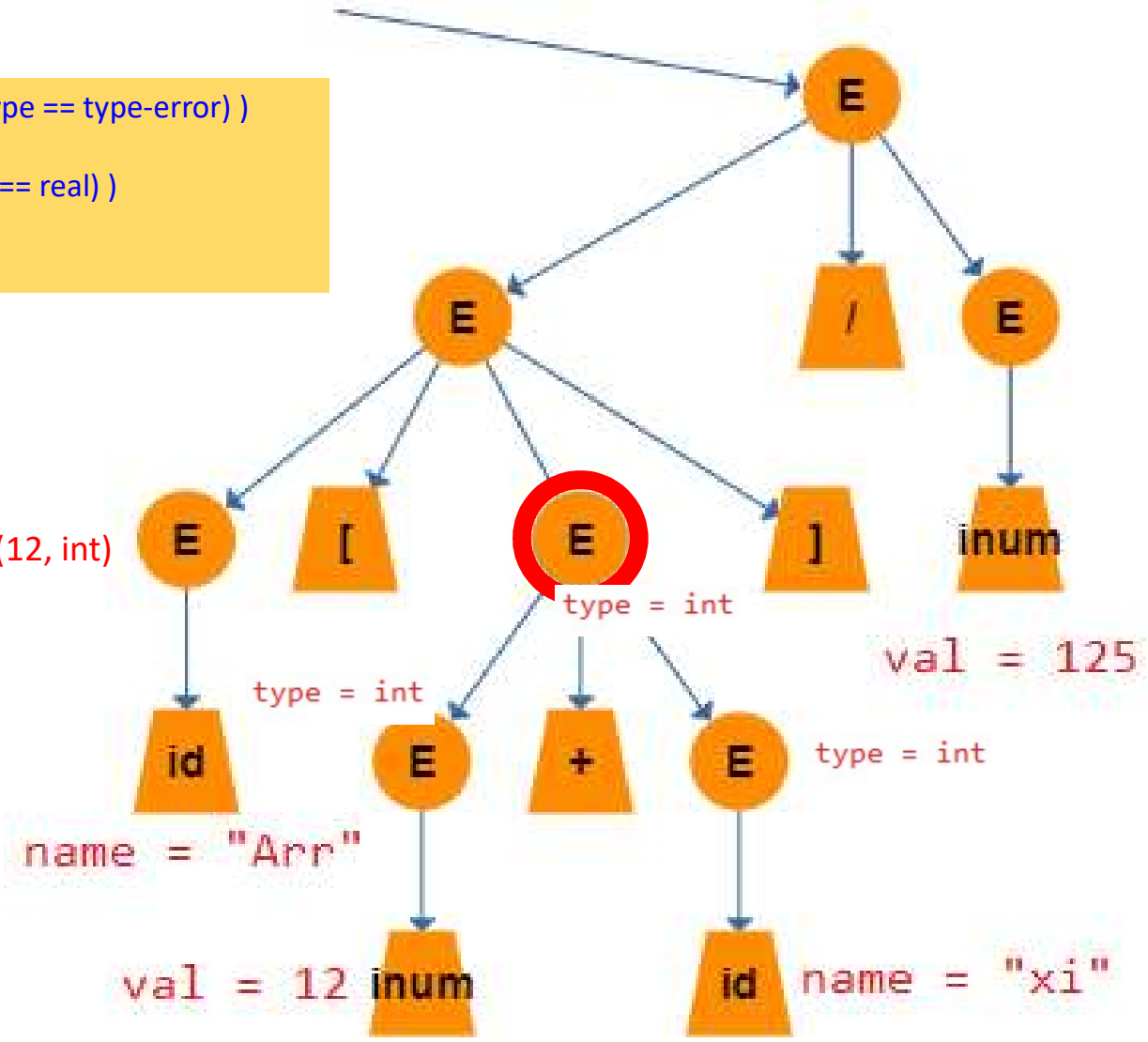
type = array(12, int)



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

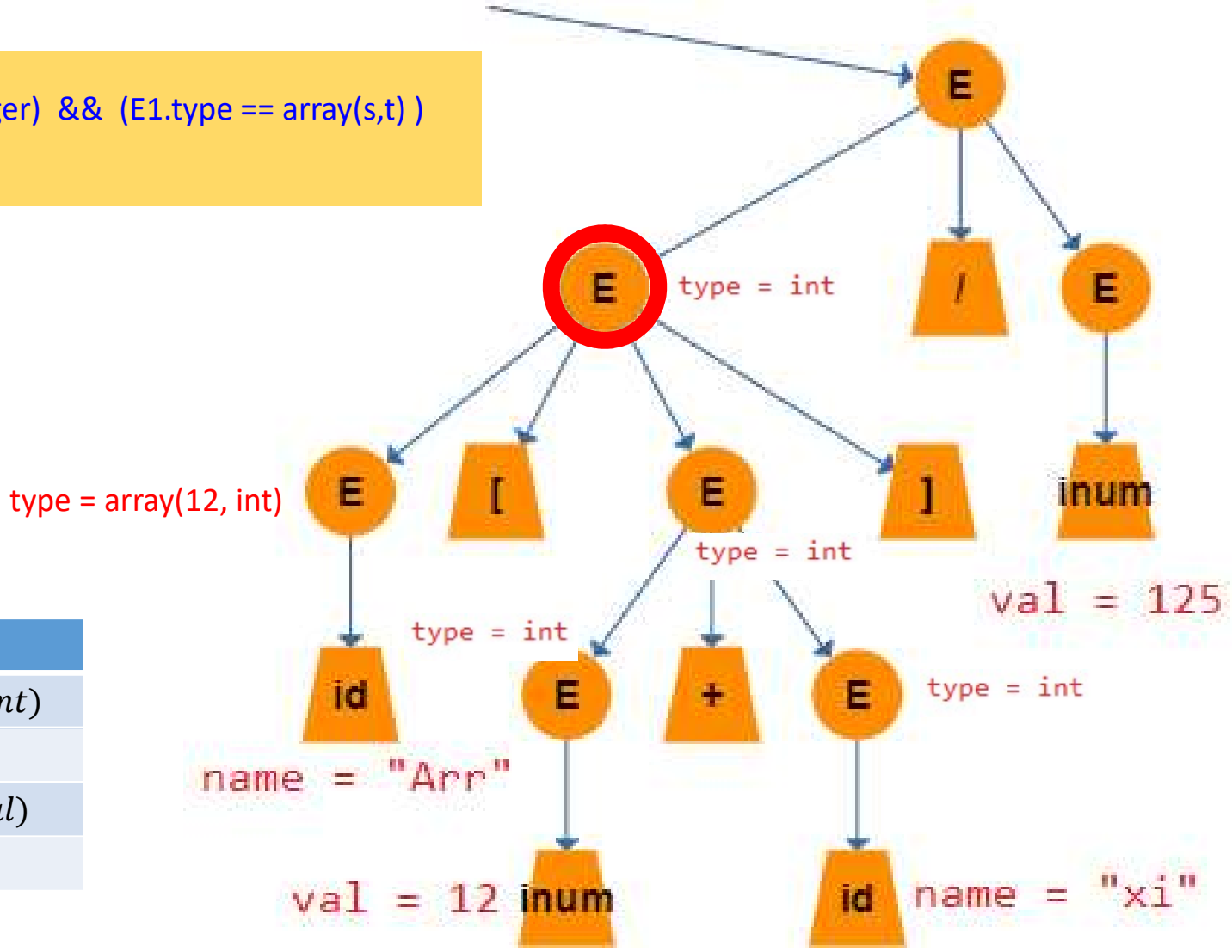
```
E→ E1 + E2
{E.type =
            if ( (E1.type == type-error) || (E2.type == type-error) )
                  then type-error;
            elseif ( (E1.type == real) || (E2.type == real) )
                  then real;
            else
                  integer;
}
```

type = array(12, int)



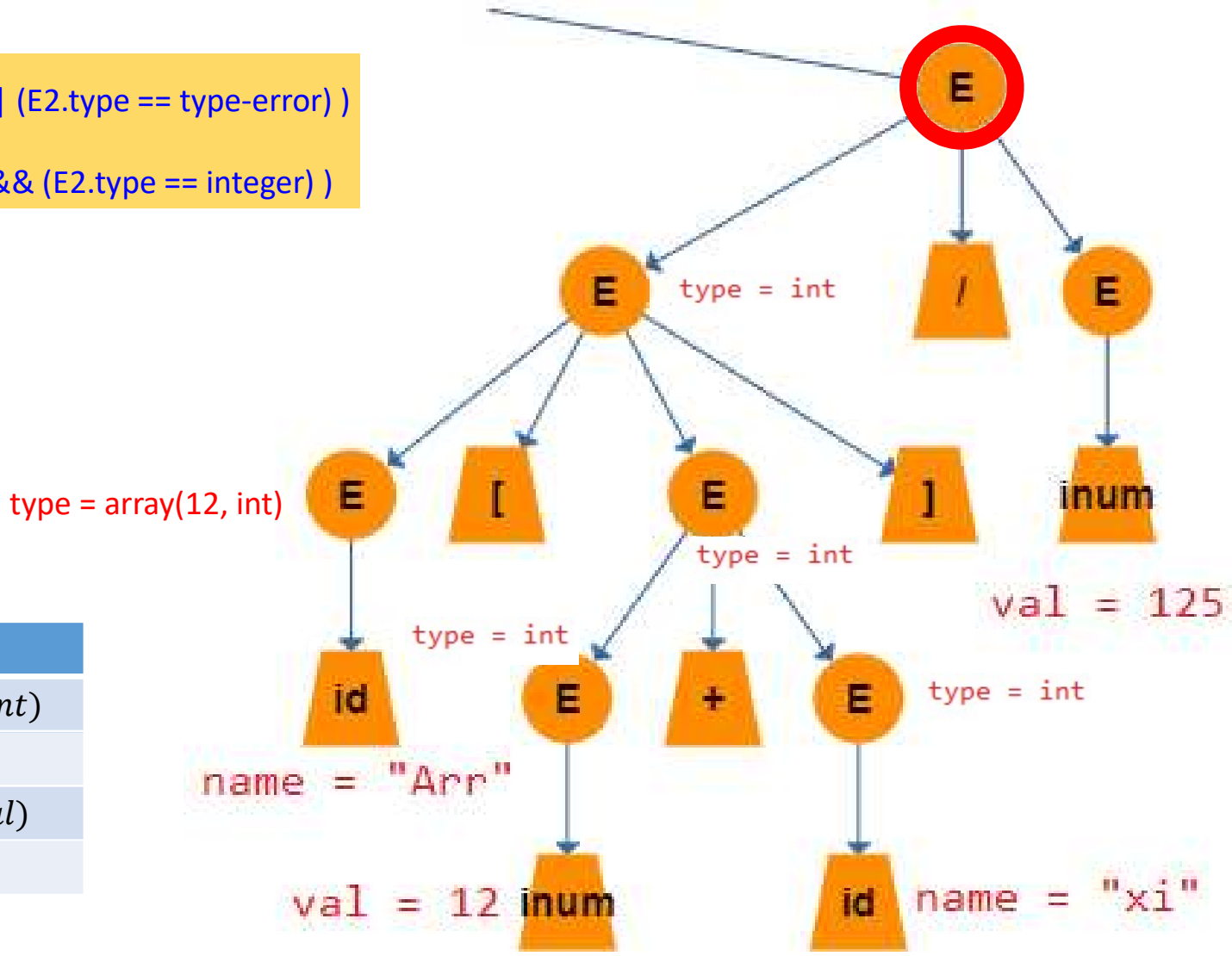
Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

E→ E1[E2]
{ E.type =
if ((E2.type == integer) && (E1.type == array(s,t))
then t;
else type-error;
}



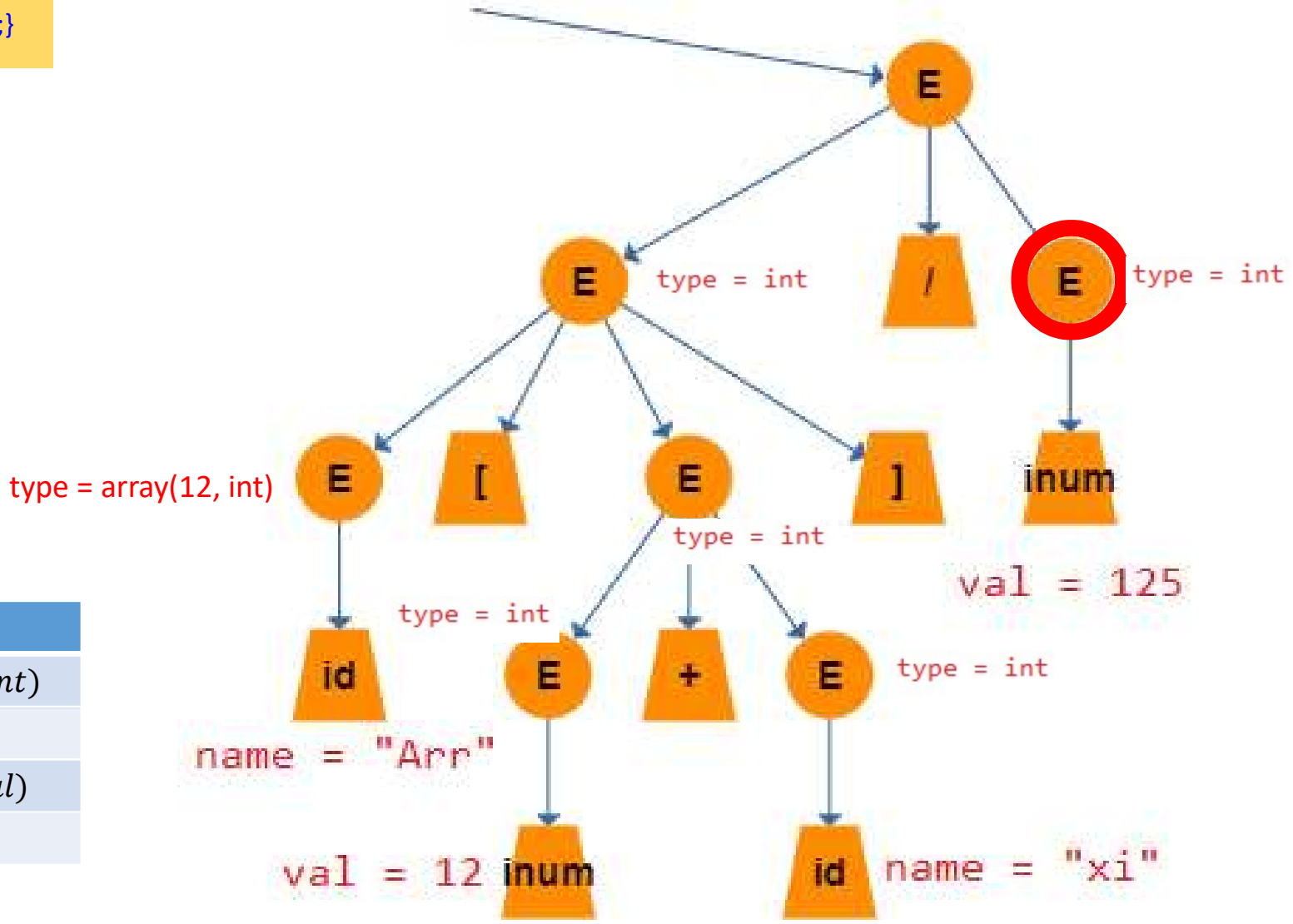
Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

```
E→ E1 / E2
 {E.type =
  if ( (E1.type == type-error) || (E2.type == type-error) )
     then type-error;
  elseif ( (E1.type == integer) && (E2.type == integer) )
     then integer;     // div
  else
    real;
}
```



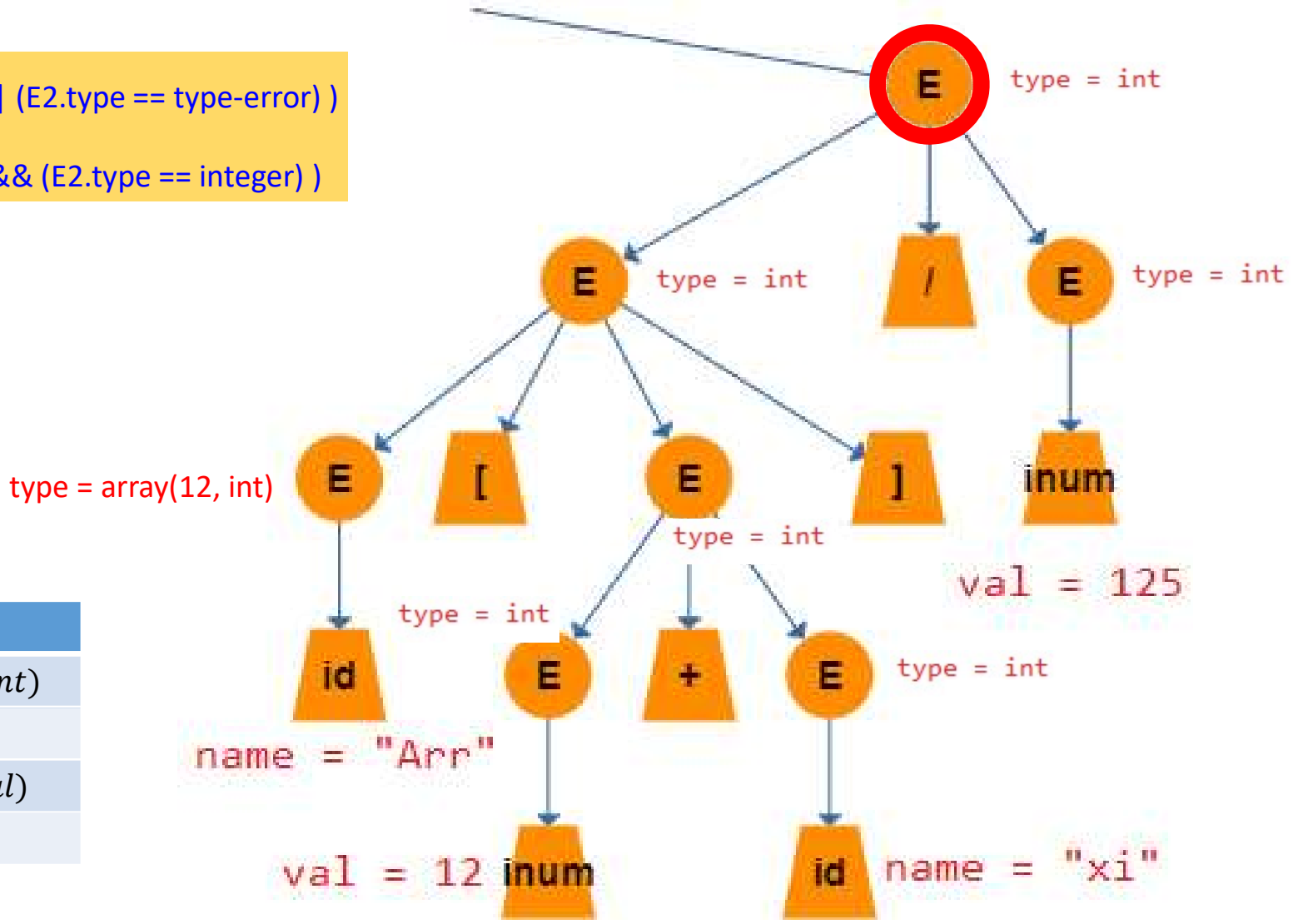
Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

E→ int_num {E.type = integer;}



Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

```
E→ E1 / E2
 {E.type =
  if ( (E1.type == type-error) || (E2.type == type-error) )
     then type-error;
  elseif ( (E1.type == integer) && (E2.type == integer) )
     then integer;     // div
  else
    real;
}
```



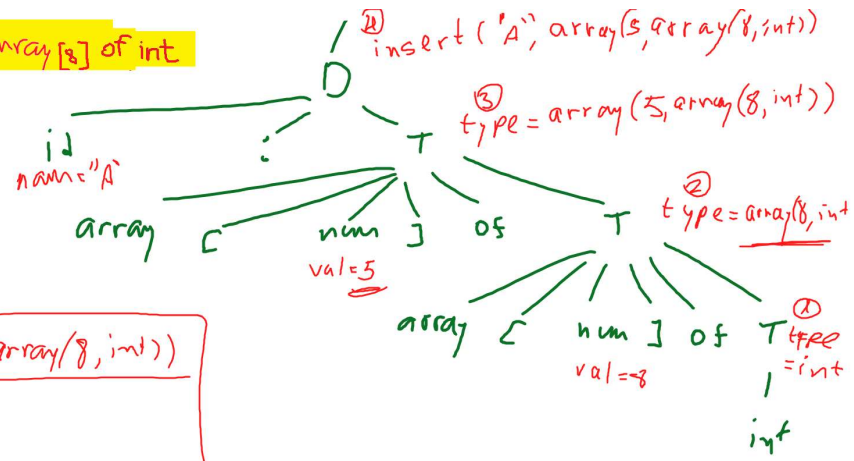
Arr	$array(100, int)$
xi	int
rp	$pointer(real)$
r	$real$

דוגמא2

A: array[5] of array[8] of int;

A[2][4]

A: array [5] of array [8] of int



"A"	array(5, array(8, int))