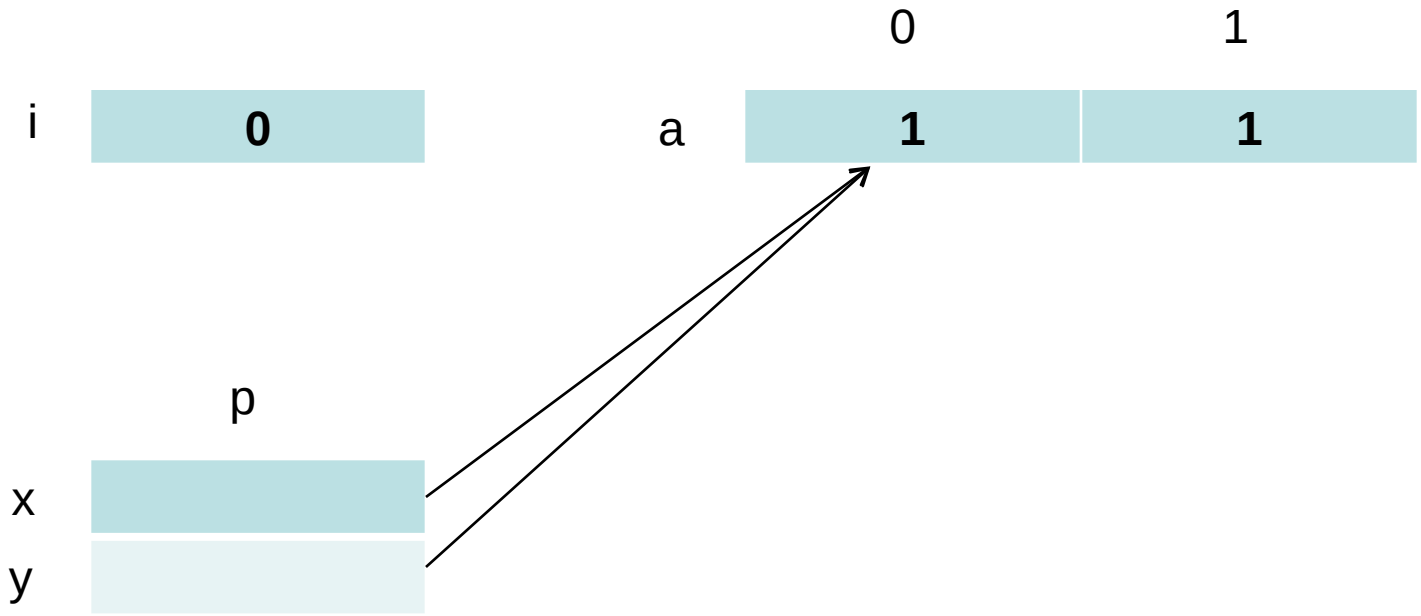
7.15 Give the output of the following program (written in C syntax) using the four parameter passing methods discussed in Section 7.5:

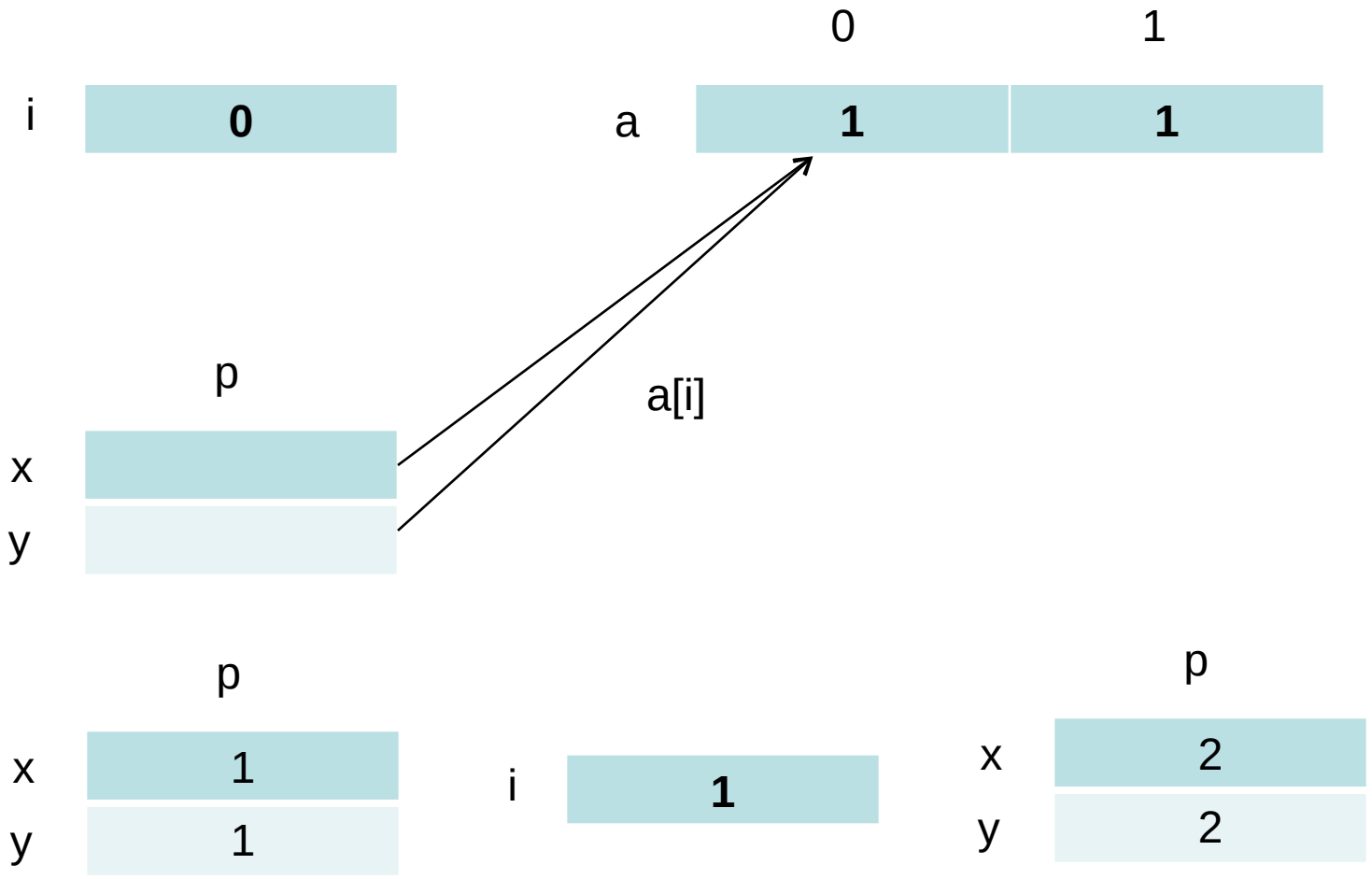
```
#include <stdio.h>
int i=0;

void p(int x, int y)
{ x += 1;
  i += 1;
  y += 1;
}

main()
{ int a[2]={1,1};
  p(a[i],a[i]);
  printf("%d %d\n",a[0],a[1]);
  return 0;
}
```

by value	by reference
1 1	3 1
by value-result	**by name**
2 1 1 2	2 2

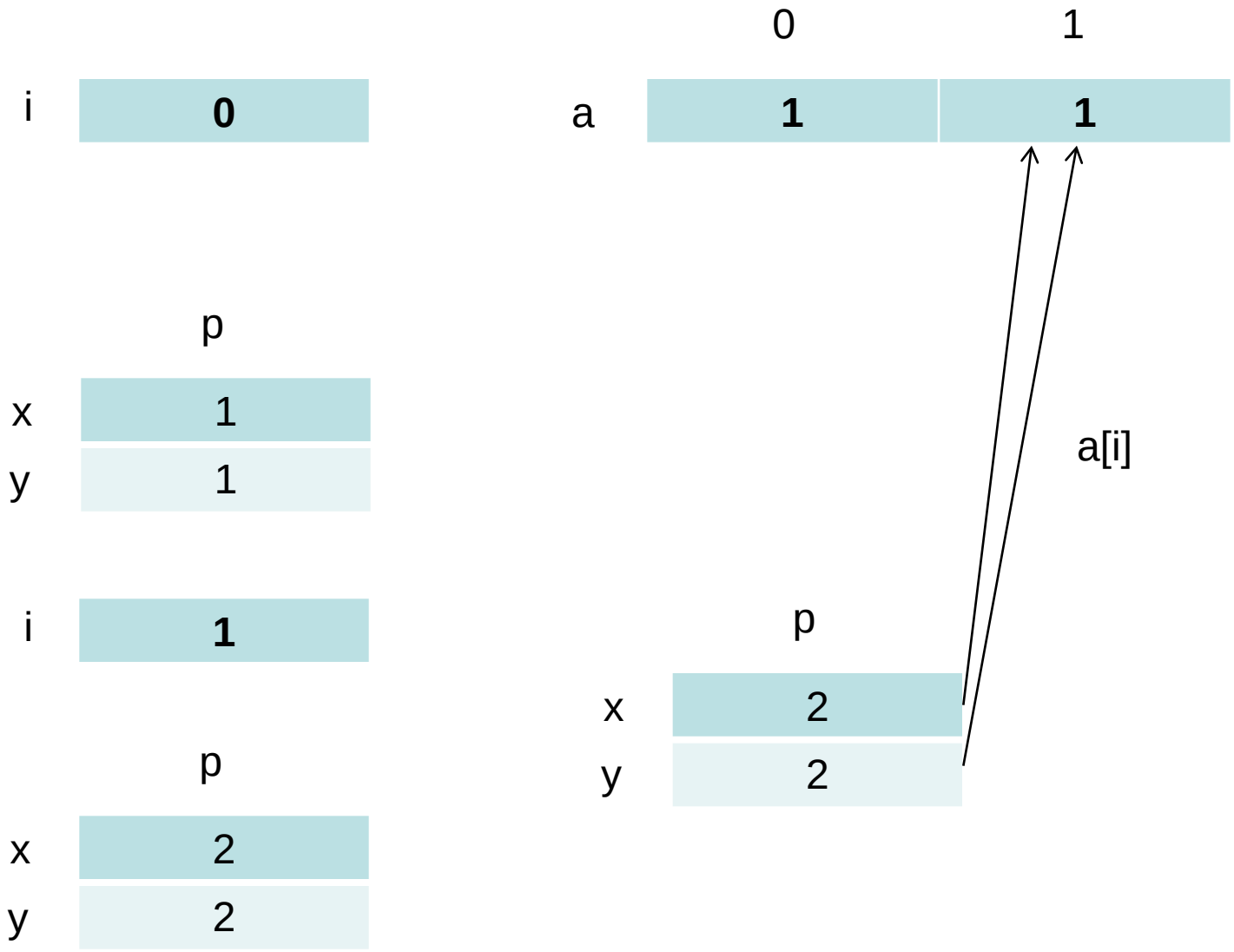
7.15 by reference



7.15 by value-result – address at call



7.15 by value-result – address at exit



7.15 by name

a(i) = a(i) + 1 == a(0) = a(0) + 1 = 1 + 1 = 2

i = i +1 == i = 0 +1 = 1

a(i) = a(i) + 1 == a(1) = a(1) + 1 = 1 + 1 = 2

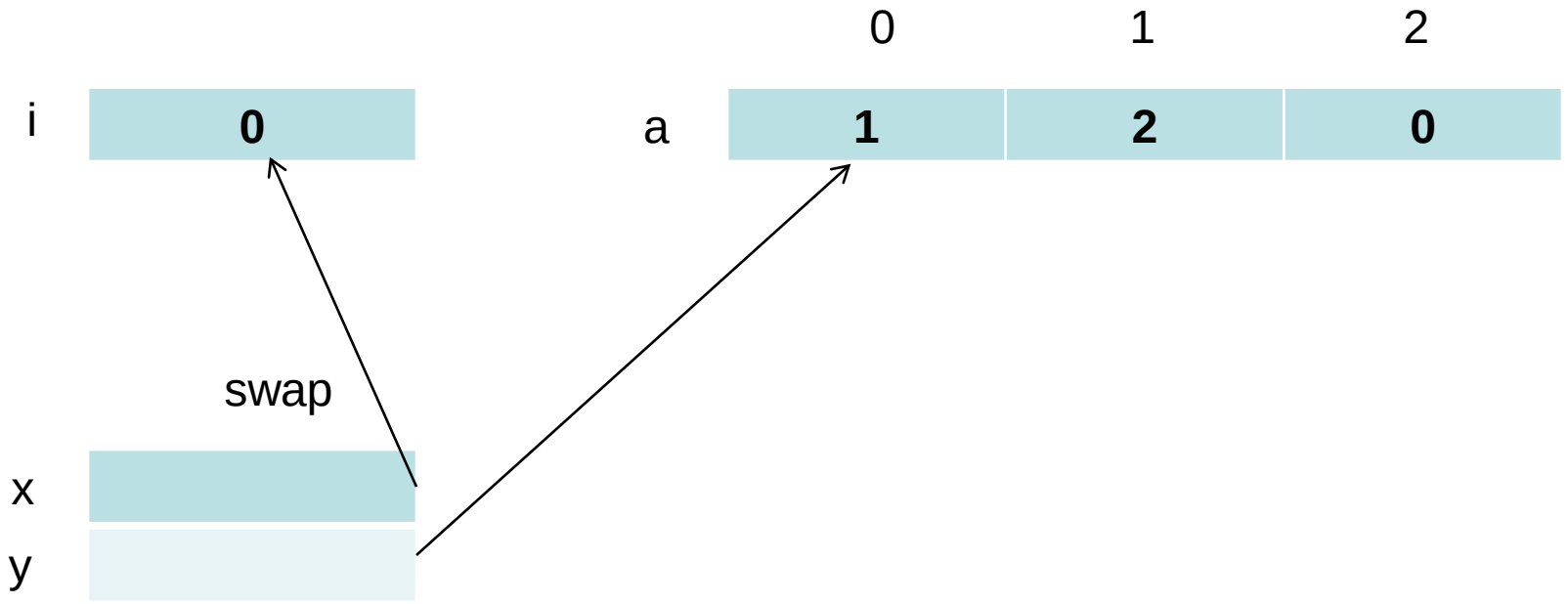
7.16

Give the output of the following program (in C syntax) using the four parameter passing methods of Section 7.5:

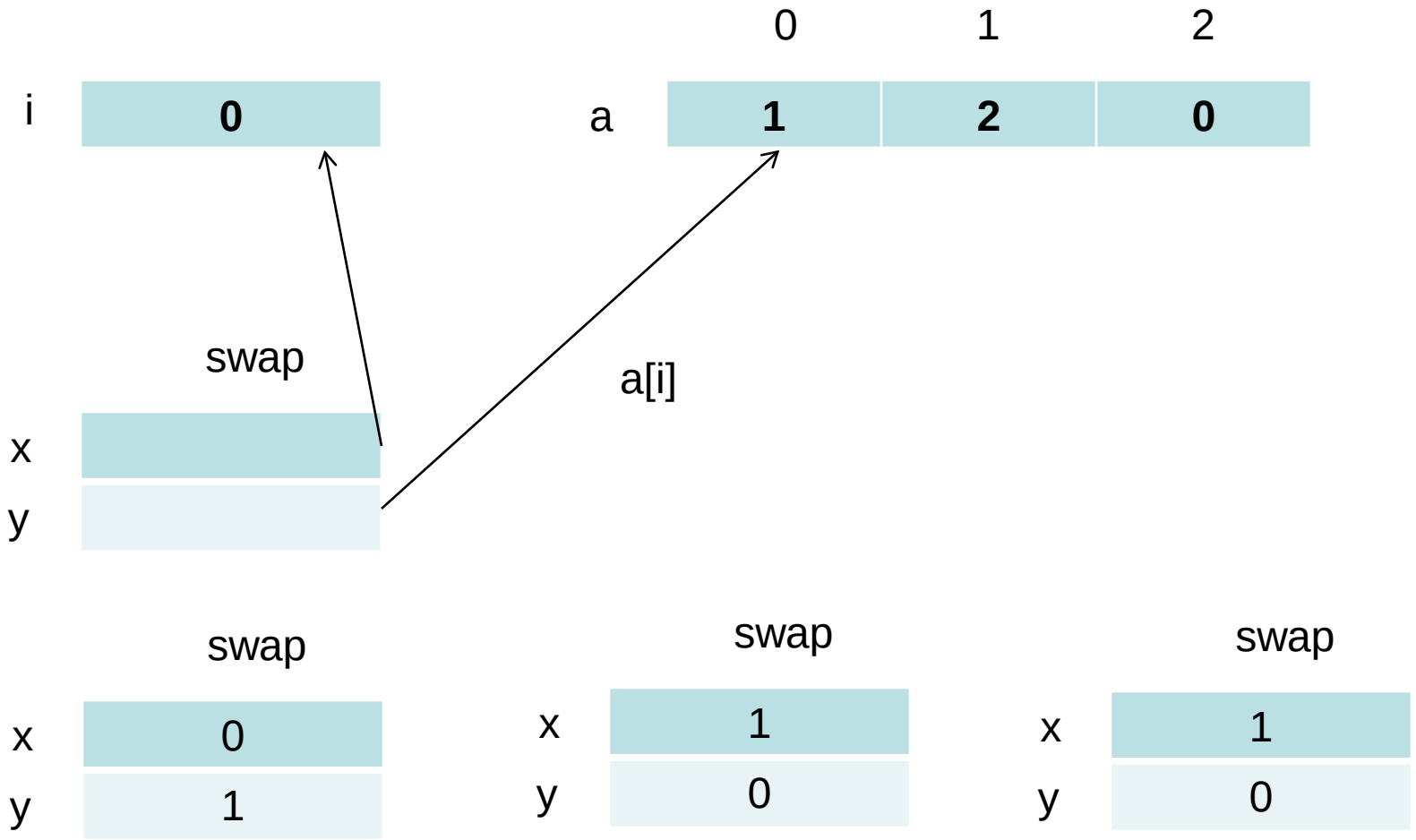
```
#include <stdio.h>
int i=0;

void swap(int x, int y)
{ x = x + y;
  y = x - y;
  x = x - y;
}

main()
{ int a[3] = {1,2,0};
   swap(i,a[i]);
   printf("%d %d %d %d\n",i,a[0],a[1],a[2]);
   return 0;
}
```

by value	by reference
0 1 2 0	1 0 2 0
by value-result	**by name**
1 0 2 0 1 1 0 0	2 1 -1 0

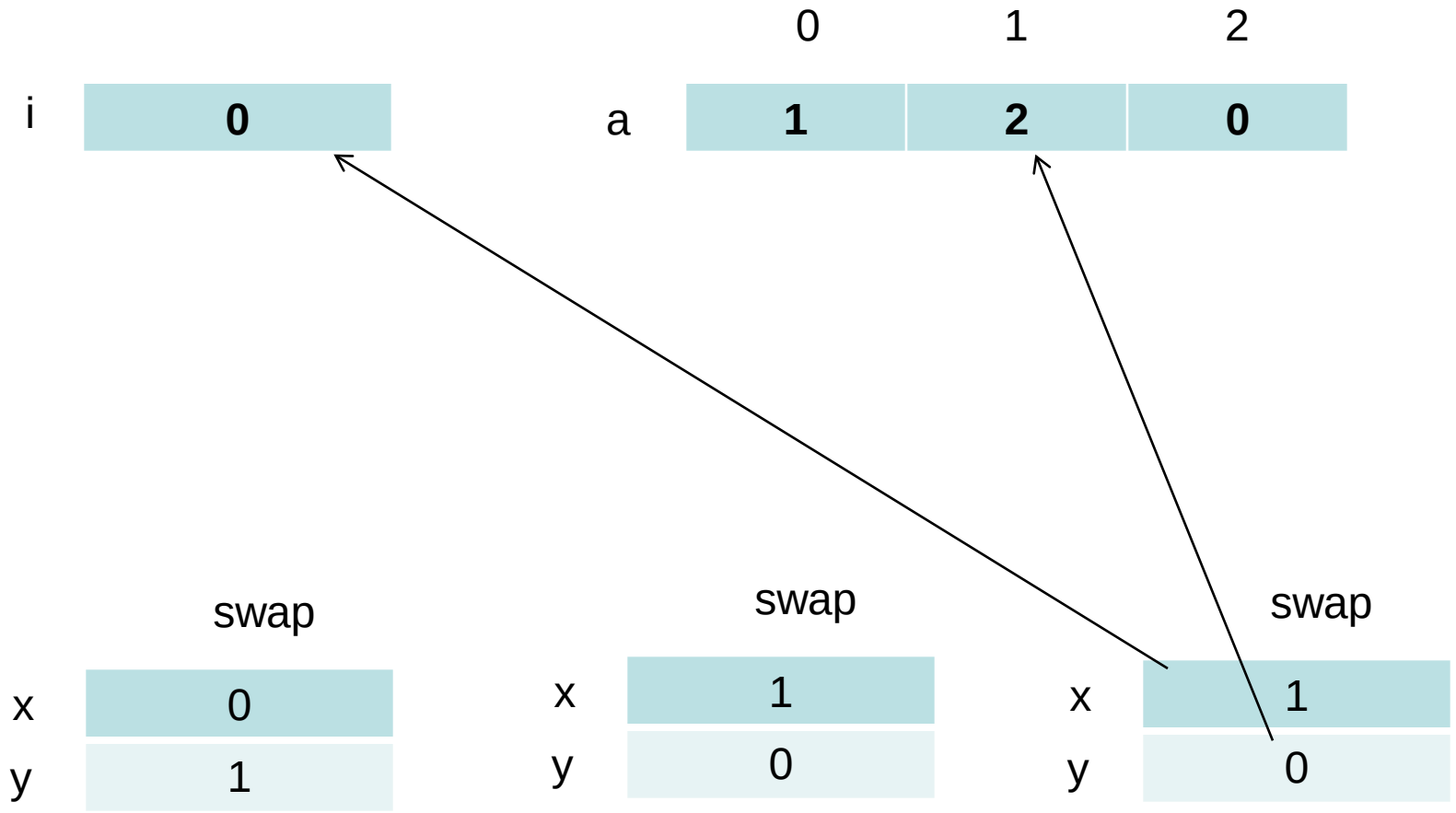
7.16 by reference



7.16 by value-result – address at call



7.16 by value-result – address at exit



7.16 by name

i = i + a(i)	==	i= 0 + 1 = 1		
a(i) = i - a(i)	==	a(1) = 1 – a(1)	==	a(1) = 1 – 2 = -1
i = i - a(i)	==	i = 1 – a(1)	==	i = 1 – (-1) = 2