What will be displayed in the screen after the following program executes, provided the formal parameter denoted with & will be transferred by:

a. By value = 265432

b. By value/result

c. By reference = 465632

d. By name

int a[5];

int i,X=1;

void swap (int&a, int&b,int&c)

int t;

{

c++;

t = a+X+c; a = b; b = t;

}

void main()

{

for (i=0;i<5;i++) a[i] = 6 – i;

i = 2;

swap(i, a[i],X);

printf(“%d%d%d%d%d%d”,i,a[0], a[1], a[2], a[3], a[4]);

}

a = [6, 5, 4, 3, 2]

1. By value

The parameter in swap function does not modify the value of input in main scope

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| State | i | a[0] | a[1] | a[2] | a[3] | a[4] | X = c | t |
| 1 | 2 | 6 | 5 | 4 | 3 | 2 |  |  |
| 2 | x |  |  | x |  |  |  |  |
| 3 | 2 |  |  | 4 |  |  |  |  |

=> Answer: 265432

b. By value/result

=> Answer: 465432

c. By reference

The parameter in swap function modifies the value of input in main scope

=> 465632

d. By name

=> SEE VID 9/8 AT THE END