

## Task 6.3 Hand execution

Program 1:

1) vector 

7	0	1	-3	12
---	---	---	----	----

size 

5
---

i 

Ø	x	1	2	3	4	5
---	---	---	---	---	---	---

result = 1

\* int result = 0;

for (int i = 0; i < data.size(); i++)

i = 0; i < 5 ; +1 )

if (data[i] = 0)

2) vector 

0	2	0	11	-1
---	---	---	----	----

size 

5
---

i 

Ø	r	2	3	4	5
---	---	---	---	---	---

result 

Ø	x	2
---	---	---

result = 2

1	1	1	1	1
---	---	---	---	---

Ø	1	1	1	1
---	---	---	---	---

2	1	1	1	1
---	---	---	---	---

3) numbers.

## Program 02

1)

vector 

2	-5	0	-3	23
---	----	---	----	----

size 

5
---

i 

0	1	2	3	4	5
---	---	---	---	---	---

data 

2	-5	0	-3	23
---	----	---	----	----

5	3
---	---

```

for (int i = 0; i < data.size(); i++)
{
    if (data[i] < 0)
        data[i] = data[i] * -1;
}

```

2)

vector 

0	-2	-4	11	-1
---	----	----	----	----

size 

5
---

i 

0	1	2	3	4	5
---	---	---	---	---	---

0	-2	-4	11	-1
---	----	----	----	----

2	4	1
---	---	---

3) negative to positive calculation.

## Program 03

1) vector  $\boxed{2 \mid -5 \mid 0 \mid 1 \mid 23}$

size  $\boxed{5}$

idx  $\boxed{1}$

last  $\boxed{4 \mid 3 \mid 2 \mid 1}$

$\boxed{2 \mid -5 \mid 0 \mid 1 \mid 23} = 4$   
 $\underline{\hspace{2cm}}$   
 $\underline{\hspace{2cm}}_{x_0}$

if ( $idx > 0$  and  $idx < data.size()$ )

{ int last = data.size() - 1;

data[idx] = data[last]

data.pop\_back();

2) data  $\boxed{0 \mid -2}$

size  $\boxed{2}$

idx  $\boxed{1}$

last  $\boxed{1}$

data  $\boxed{0 \mid -2} = \underline{\hspace{1cm}}$

3) data  $\boxed{4 \mid 3}$

size  $\boxed{2}$

idx  $\boxed{4}$

4) find the index

## Program 4

i) data 

4	-6	0	8	-7
---	----	---	---	----

  
 size 

5
---

  
 idx 

2
---

  
 value 

-7
----

  

4	-6	∅	8	-7	-7
---	----	---	---	----	----

  
 size 

6
---

  
 i 

5	4	3	2
---	---	---	---

```

if (idx >= data.size() - 1) return s;
if (idx < 0) idx = 0;
for (int i = data.size() - 1; i > idx; i--) {
    data[i] = data[i - 1];
    data[i - 1] = value;
}
  
```

Adding new values to the vector