

Answers to Questions from TT 6.1

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Hand execution using a trace table

Demonstrate how the following code is executed in the computer.

```
1 def whatdoesthisfunctiondo?(data)
2   result := 0;
3   i = 0
4   while i < data.length
5     result := result + data[ i ];
6     i = i + 1
7   end
8   return result
9 end
```

- First, We set result and Index at 0 since in computing language 0 will considered the first variable
- While index is less than data.length(The arrays) then result will take result+data(and which variable number is)
- After one index is completed then we will take the current index to add on 1
- returning the result

Draw and complete a trace table for the following two sets of data and place the final result in the table below:

<i>data</i>	<i>Result</i>
[6, -3, 3, 8, 1]	
[2, 6, -2, 3]	

Once you have completed your trace tables (below) write the name you chose for the function above:

sum_array_list

{6,-3,3,8,1}=15

{2,6,-2,3}=9

Place your trace tables below:

For data set: [6, -3, 3, 8, 1]

Data	INDEX	Result
6	0	0
-3	1	6
3	2	3
8	3	6
1	4	14
	5	15

For data set [2, 6, -2, 3]=

DATA	INDEX	RESULT
2	0	0
6	1	2
-2	2	8
3	3	6
	4	9