

Answers to Questions from TT 7.2.1

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Hand execution using a trace table

Demonstrate how the following code is executed in the computer.

```
1 def whatshouldthisfunctionbecalled?(data, val)
2     i = 0
3     result = false
4     while i < data.length
5         if data[i] == val
6             result = true
7             return result
8         end
9         i = i + 1
10    end
11    return result
12 end
```

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

<i>data</i>	<i>val</i>	<i>Result</i>
[2, 6, -4, 3, 7]	3	True
[-2, 8, 2, -5, 9]	6	False

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

_____check_value_in_array(data,val)_____

Place your trace tables below:

For data set: **data** = [2, 6, -4, 3, 7] **val** = 3

Data	i	Result
2	0	False
6	1	False
-4	2	False
3	3	True
7	4	Not applicable(program ended)

Therefore, the result is True.

For data set: **data** = [-2, 8, 2, -5, 9] **val** = 6

Data	i	Result
-2	0	False
8	1	False
2	2	False
-5	3	False
9	4	False

There is no value 6 in the data set. Therefore, the result is False.