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:

data	*val*	*Result*
[2, 6, -4, 3, 7]	3	
[-2, 8, 2, -5, 9]	6	

data	val	result
[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:

the name would be value_searcher

Place your trace tables below:

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

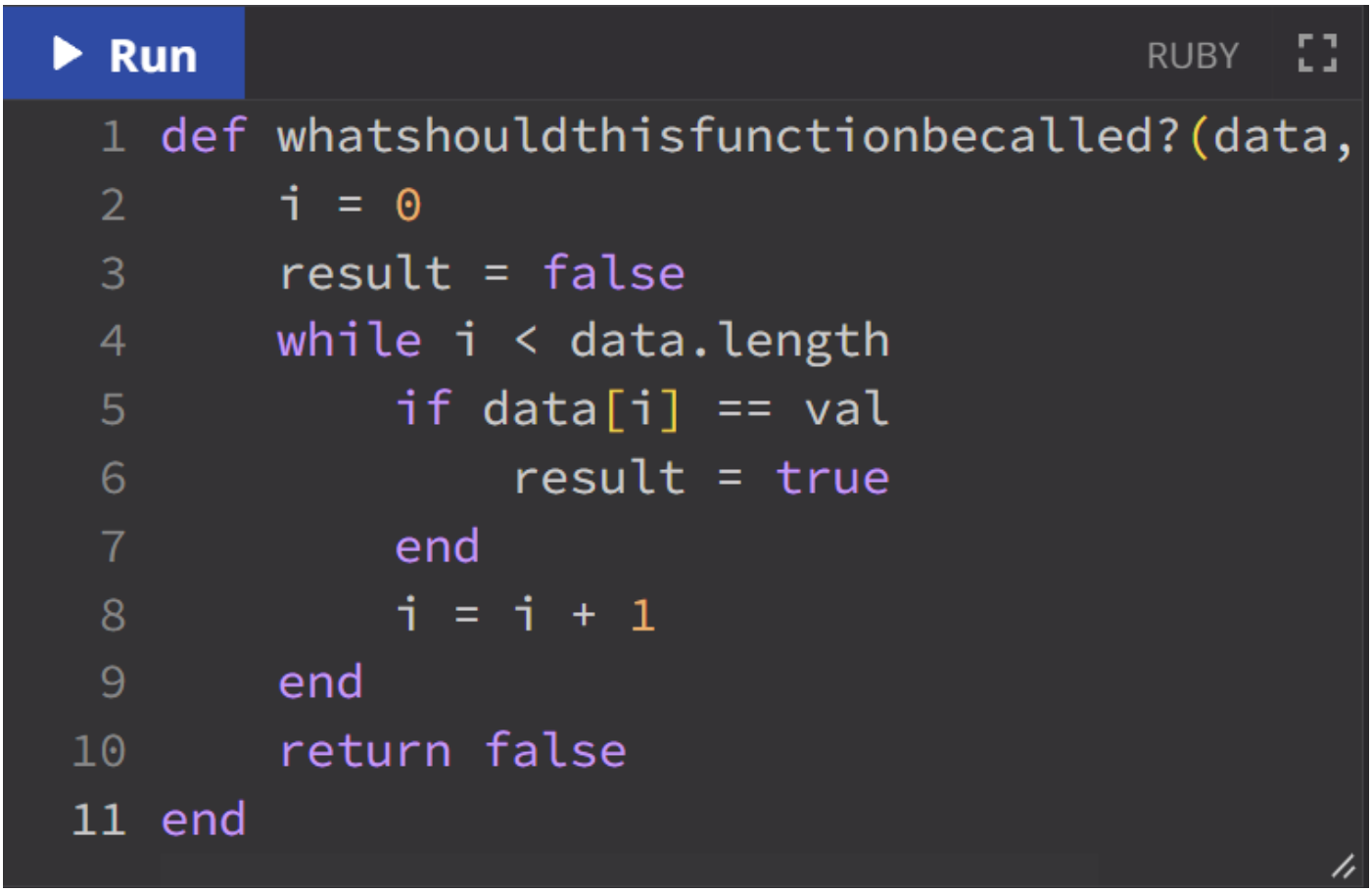
i	data[i]	result
0	2	False
1	6	False
2	-4	False
3	3	True

4	7	False

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

i	data[i]	result
0	-2	False
1	8	False
2	2	False
3	-5	False
4	9	False

4.



If the result = result, it will stop the function instantly, so by having the result = true in the loop we can find the number if it's true, else it will return false after the loop function.