# Answers to Questions from TT 7.2

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**Hand execution using a trace table**

*Demonstrate how the following code is executed in the computer.*

A screenshot of a computer code

Description automatically generated

Complete a trace table (using the answer sheet) for the following two arrays and parameter values:

|  |  |  |
| --- | --- | --- |
| **Data** | **Val** | **Result** |
| [2, 6, -4, 3, 7] | 3 |  |
| [-2, 8, 2, -5, 9] | 6 |  |

**1. Trace tables:**

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

Val= 3

|  |  |  |
| --- | --- | --- |
| **i** | **Data[i]** | **Result** |
| 0 | 2 | False |
| 1 | 6 | False |
| 2 | -4 | False |
| 3 | 3 | True |
|  |  |  |

Return result breaks loop early and returns true

Final Result = true

For data set [-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 |

Return result does not break the loop early and returns false

Final Result = false

2. Results Answer

|  |  |  |
| --- | --- | --- |
| **Data** | **Val** | **Result** |
| [2, 6, -4, 3, 7] | 3 | True |
| [-2, 8, 2, -5, 9] | 6 | False |

3. Name the function

I would call this function “find\_val”

4. Improve the code

To improve this code of this function down to 6 lines of code, you can use the array.includes?() method to scan the array for a value and the method finds the value, it will return true, if it doesn’t it will return false.

A screenshot of a computer program

Description automatically generated