# SIT102 – Introduction to Programming

# Answers for 8.1P Reading Another Language

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**Program 1**:

1. What kind of variable is **data** and **val**? Local, global, parameter? Array? What type?

* It is a local variable assigned to the function which accept values from the caller, data is an array of integers and val is an integer value.

1. What about **i**?

* “i” is a local integer variable within the function, used as a loop to iterate through the data array elements.

1. What kind of data will this function return?

* This function returns a Boolean (True or False) value as to check the value is present or not in the array.

1. What would be returned if the function was called with the data in **sample data 1**?

* The function returns a false because the value 5 does not exists in the array.

1. What would be returned if the function was called with the data in **sample data 2**?

* The function would return true because the value 2 is present in the array.

1. What would be a good name for this function?

* Since it is checking for the present number in the array, “value\_check” would be a good name for this function.

**Program 2:**

1. What will be output when the program is run?

|  |
| --- |
| Starting … |
| ADDING 30 + 5 |
| SUBTRACTING 78 - 4 |
| Age: 35 Height: 74 |
| I like bananas |
| I like orange |
| I like figs |
| I like lemons |
| My favourite fruit is lemons |

1. What kind of variables are the following? Local, global, parameter? Array? Type?

|  |  |
| --- | --- |
| Identifier | Description |
| age | Integer and a local variable |
| height | Integer and a local variable |
| fruit | Local variable and array |

**Program 3:**

1. What will the code output when run?

|  |
| --- |
| Checking score: [57, 26, 107, 92, 15] |
| Checking score 57 |
| Checking score 26 |
| Checking score 107 |
| Checking score 92 |
| Checking score 15 |
| 19 |
|  |
|  |

1. What are individualScores, bonusScore, baseScore, and teamScore? Constant, variable? Local, global, parameter? Array? What type?

|  |  |
| --- | --- |
| Identifer | Description |
| individualScores | Array of integers and constant |
| bonusScore | Integer and constant |
| baseScore | Integer and constant |
| teamScore | Integer and variable |

1. What do you think the difference is between the keywords **let** and **var**? Hint: have a look at how they are used in the code.

* The function cannot be changed once a constant is declared using the let statement. Individualscore, bonusscore and basescore are all defined using let to make the numbers fixed and unchangeable.
* On the other hand, when a variable is declared with the var keyword that value can be replaced or changed throughout the program. The teamscore variable in the code allows its value to be adjusted iteratively in response to various conditions.