

## Function: ???

Write the code out for the following function in Pascal or C. Then hand execute the code you have written.

Once you have done that, give a name for this function based on what you think it does.

### Details

#### Return Type

The function returns a **Boolean** value.

#### Parameters

- **data**, an array of Integers
- **numb**, an Integer

and, if you decide to use C:

- **size**, an Integer

### Steps

1. Assign **result** **false**.
2. For each element in the array **data** check if the current value is equal to **numb**.
3. If so, **result** is **true** and break the loop.

#### Hand Execution Data

- **data** = [99, 24, 15, 11]
- **numb** = 15
- **size** = 4

## Function: ???

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## Details

### Return Type

The function returns a **Integer** value.

### Parameters

- **data**, an array of Integers
- **numb**, an Integer

and, if you decide to use C:

- **size**, an Integer

## Steps

1. Assign **result** to 0.
2. For each element in the array **data** check if the current value is equal to **numb**.
3. If so, increment **result**.

### Hand Execution Data

- **data** = [5, 24, 5, 5, 6, 7]
- **numb** = 5
- **size** = 6

## Function: ???

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Once you have done that, give a name for this function based on what you think it does.

## Details

### Return Type

The function returns a **Boolean** value.

## Parameters

- **data**, an array of Integers **passed in by reference**
- **numb**, an Integer

and, if you decide to use C:

- **size**, an Integer

## Steps

1. Assign **result** to **false**.
2. For each element in the array **data** check if the current value, **data[i]**, is equal to **numb**.
3. If so, **result** is now **true** and for each value starting at this current value, **data[j]**, ending before the very last value in the array **data**, assign that value to this loop's current value's next value, i.e., **data[j] := data[j+1]**.
4. The last value in **data** is equal to 0.

## Hand Execution Data

- **data** = [5, 6, 7, 8, 9, 10, 11, 12]
- **numb** = 8
- **size** = 8

## Example Result

```
data    is now = [5, 6, 7, 9, 10, 11]
result is now = true
```

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## Details

### Return Type

The function returns an **Boolean** value.

### Parameters

- **data**, an array of Integers

and, if you decide to use C:

- **size**, an Integer

## Steps

1. Assign **result** to **false**.
2. For each element in the array **data**, check if the current value is greater than 0.
3. If so, **result** is now true and break the loop.

## Hand Execution Data

- **data** = [-99, -12, 0, 32]
- **size** = 4

## Function: ???

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Once you have done that, give a name for this function based on what you think it does.

## Details

### Return Type

The function returns a **Boolean** value.

### Parameters

- **data**, an array of Integers

and, if you decide to use C:

- **size**, an Integer

### Steps

1. Assign **result** to the first element in the array **data**.
2. For each element in the array **data**, check if the current value is greater than **result**.
3. If so, **result** is now equal to the current value.

### Hand Execution Data

- **data** = [101, 24, 33, 119]
- **size** = 4

### Procedure: ???

Write the code out for the following procedure in Pascal or C. Then hand execute the code you have written.

Once you have done that, give a name for this procedure based on what you think it does.

### Details

#### Parameters

- **data**, an array of Integers
- **numb**, an Integer

and, if you decide to use C:

- **size**, an Integer

#### Steps

1. For each element in the array **data**, print out the current value multiplied by **numb**.

## Hand Execution Data

- `data = [2, 4, 6, 8]`
- `numb = 2`
- `size = 4`

## Procedure: ???

Write the code out for the following procedure in Pascal or C. Then hand execute the code you have written.

Once you have done that, give a name for this procedure based on what you think it does.

## Details

### Parameters

- `data`, an array of Strings

and, if you decide to use C:

- `size`, an Integer

### Steps

1. For each element in the array `data`, print out the current word *on the same line*, putting a space in between elements.
2. If the current element is the last element, put a full stop at the end of the line *on a new line*.

## Hand Execution Data

- `data = ['Hello', 'My', 'Name', 'Is', 'Fred']`
- `size = 5`

### Example Output

Hello My Name Is Fred.

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### Details

#### Return Type

The function returns a **Boolean** value.

#### Parameters

- **data**, an array of Integers **passed in by reference**
- **numb**, an Integer
- **new**, an Integer

and, if you decide to use C:

- **size**, an Integer

### Steps

1. Assign **result** to **false**.
2. For each element in the array **data**, check if the current value is equal to **numb**.
3. If so, the current value, **data[i]**, is now equal to **new** and **result** is now **true**.

### Hand Execution Data

- **data** = [1, 4, 1, 2, 5, 1, 8]
- **size** = 7
- **numb** = 1
- **new** = 0

### Example Result

```
data    is now = [0, 4, 0, 2, 5, 0, 8]
result is now = true
```

## Procedure: ???

Write the code out for the following procedure in Pascal or C. Then hand execute the code you have written.

Once you have done that, give a name for this procedure based on what you think it does.

### Details

#### Parameters

- **data**, an array of Integers **passed in by reference**

and, if you decide to use C:

- **size**, an Integer

### Steps

1. For each element in the array **data**, make the value equal to the next index's value.
2. For the last index, make its value equal to 0.

#### Hand Execution Data

- **data** = [3, 1, 5, 10]
- **size** = 4

#### Example Output

[1, 5, 10, 0]

## Function: ???

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Once you have done that, give a name for this function based on what you think it does.



## Details

### Return Type

The function returns a **Integer** value.

### Parameters

- **data**, an array of Integers

and, if you decide to use C:

- **size**, an Integer

### Steps

1. For each element in the array **data**, add the current value to **result**

### Hand Execution Data

- **data** = [2, 2, 4, 2]
- **size** = 4