



Question

A programmer has been given a set of data as a 2D array:

34	54	22	32
63	23	41	23
62	42	16	45
35	54	44	45

Write an algorithm in pseudocode which:

- adds each item up
- prints the total to the screen

Answer



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There are always different ways to solve a problem. This algorithm is just an example. What is important is that the logic is correct!

LOGIC:

- Declare a 'total' variable and assign it the value zero
- Create a FOR loop for traversal of each array inside the array
- Create another FOR loop inside the first, for traversal of each item within each of those arrays
- Use the correct indexing for accessing each item and add it to the total
- Display the total at the end

EXAMPLE ALGORITHM:

```
total = 0  
for row = 1 - 4  
  for column = 1 - 4  
    total = total + array[row, column]  
  next column  
next row  
  
print(total)
```

Remember, the table is a visualisation of the 2D array.
The array itself would be coded as:

```
Array = [ [34,54,22,32], [63,23,41,23], [62,42,16,45], [35,54,44,45] ]
```